(2)

AN ESSAY Of the True NATURE And Due METHOD Of Treating the *GOUT*,

Written for the Uſe of

RICHARD TENNISON, Eſq;

Together with

An ACCOUNT of the NATURE and QUALITY of BATH-WATERS, the Manner of uſing them, and the Diſeaſes in which they are proper.

AS ALSO,

Of the *Nature* and *Cure* of moſt Chronical Diſtempers: *Not Publiſh'd before.*

By *GEO. CHEYNE*, M. D. & F. R. S.

The NINTH EDITION, Revis'd, Corrected and Enlarg'd to more than Double the Former.

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BRITISH MUSEUM
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MAY

ADVERTISEMENT TO THE READER.

THIS ſmall Treatiſe was originally intended for a private Paper of Inſtructions to the GENTLEMAN, whoſe Name it bears, to direct Him how to manage himſelf under the Gout. It is, indeed, an Abſtract of a larger one, on the ſame Subject, which has lain by me theſe ſeven Years; which, yet, I have not had Leiſure or Humour to finiſh. Several Copies of this having got abroad, and the pitiful Condeſcendence of pyrating Bookſellers,

even to ſuch Trifles as theſe, have conſtrain'd me to let it come out in Print, as it is, to prevent its coming out from them. The Gentlemen of the Profeſſion may eaſily perceive, by the Groſſneſs of the Philoſophy, and the low detail of the Pharmacy, it was not deſign'd for them. If any ſhall think fit to diſpute or criticiſe on the *Doctrine* here laid down, they may do it ſecurely, as if the *Author* were as much dead, as theſe his Labours will ſhortly be: I hope I know the Value of Time and Pains, and the Vanity of all human Speculations better, than to employ them in defending ſuch Trifles. All I undertake for them, is, That the Facts may be depended upon for their Truth: And the Method and Medicines for their Efficacy, towards the End, in the Circumſtances propos'd. If any Perſon under them, ſhall either amuſe himſelf, by reading this Paper;

Paper; or lighten his Pain, by following its Directions, I ſhall have obtain'd all I propos'd by it.

As to the Account of the *Bath Waters* given here, it came naturally in the way of my Subject; and is ſuch as the Obſervations I have made ſuggeſted to me. I ſcarce know, and have taken no Notice of what others may have written or obſerved on theſe Waters; nor, indeed, had it been poſſible for me, in my preſent Situation, being without my Books confin'd to Bounds, by the Nature of my Deſign. I have often obſerv'd, with Admiration, the Wiſdom and Goodneſs of Providence, in furniſhing ſo wonderful an Antidote, to almoſt all the *Chronical* Diſtempers of an *Engliſh* Conſtitution and Climate, which are chiefly owing to Errors of Diet, or rather, as a ſacred Writer expreſſes it,

To

To *Idleneſs and Fulneſs of Bread.* The Rankneſs of the Soil; the Richneſs of the Proviſions; the living ſo much on Fleſh Meat; the inconſtancy of the Weather, and the indulging in ſedentary Amuſements, or ſpeculative Studies directly leading thereto. To remedy all which, *kind Heaven* has provided *Bath Waters* as the moſt *Sovereign Reſtorative* in all the Weakneſſes of the *Concoctive Powers.*

BATH, *July*, 1720.

POST-

POSTSCRIPT
TO THE
PREFACE.

TO *this Edition I have added ſeveral* Scholia, *to illuſtrate and confirm the Doctrine, and Obſervations laid down in the Former. Some further Conſiderations about the Uſe, and Virtues of* Bathing *and* Bath *Waters, and a good many Reflections and Hints about the Nature and Cure of* Chronical *Diſtempers of ſeveral kinds, that have any Relation to the* Gout, *or came naturally into my Way, in treating thoſe others.* Phyſicians *know how cloſe a Connection, and near an Alliance,* Chronical *Diſeaſes have to one another. The* truly learned Dr Friend * *(and his Fellow-Labourers) have ſet the Practice of Phyſic, in* acute *Diſeaſes, in ſo clear a Light, and have ſo* demonſtratively *ſupply'd what was left, as wanting, by their* Predeceſſors, *in that part of our Art; that he muſt be very lazy, or very dull, who may not form to himſelf clearer* Indications, *and more diſtinct* Views *in this difficult Work,*

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* Vide Dr *Friend*, in *Hippocrat.* de morbis populariter graſſant. Item Epiſtol. de Febre Secundarit. in Variolis. Item *Lommius* de Febribus, Edit. Londin.

than

than could have been readily fram'd till now. And the worthy, and learned, the Preſident, (*Sir* Hans Sloane) *the Cenſors, and other* Fellows *of the* College *employ'd, have lately ſupply'd the World with a Body of* Pharmacy, *and Forms for* Shop-Medicines, *the moſt ſimple, neat, judicious, and copious, that ever yet appeared in Print; which will exceedingly promote the Practice of Phyſic in general. But* Chronical *Caſes fly great Towns, their Hurry and Smoak, and rejoice in Country Air, Diet, and Exerciſe; and generally, all thoſe who ſuffer under them, at one time or other, land here at* Bath *as the laſt Reſource. In about twenty Years Experience, I could not well paſs over ſo many Caſes as I have ſeen without* Reflections *and* Obſervations *on them. A few of thoſe I have communicated to the Publick, with the greateſt Plainneſs and Sincerity I could, without (I hope) any other* View *but that of being ſome-how uſeful in my low Station. If but a ſingle Perſon receive Benefit by them, I ſhall, undiſturbed, and with much Tranquillity, ſtand all their other Conſequences.*

BATH, *June*, 1721.

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AN

AN

ESSAY

On the True

NATURE

And Due

METHOD

Of Treating the

GOUT, &c.

I. DEſigning this Paper for the Inſtruction and Relief of my particular Friend, I ſhall only make ſuch Obſervations, as directly tend to that Purpoſe; paſſing by all *Theories* of the Diſtemper, as far as is conſiſtent with giving the Reaſon of my Opinions. For after having

laid down two *Propoſitions*, (which will be found the Principles of my Reaſoning through this Diſcourſe) I proceed to the Obſervations themſelves.

II. *Prop.* 1. Of two Men having all other Circumſtances alike, as near as may be; of the ſame Parents; born healthy; of the ſame Stature, Complexion, Diet, Air, Exerciſe, *&c.* It ſeems to me impoſſible to aſſign a ſolid Reaſon, why the one ſhould be afflicted with the *Gout*, the other be abſolutely free from it, but this, That the * ſmalleſt Veſſels of the *gouty* Perſon muſt be in their natural † Conformation narrower and more ‖ ſtiff, than thoſe of the other, who is free from the *Gout*, in reſpect of their common Stature and Size. For thereby the crude and groſs Humours, which are confin'd, or paſs with Pain, in the *gouty* Perſon will eaſily fly off by Perſpiration, and the other Drains of the Body, in the Perſon free from the *Gout*.

III. *Scholium.* This *Propoſition* is evident from hence, That the *Gout* ſeldom ſeizes on People till towards the Beginning of the Decline of Life, when the Solids having attained their utmoſt *Dimenſions*, and being ſtretched out to the full Length they have to

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* *Capillaries.* † *Make.* ‖ *Tenſe.*

reach,

reach, become in ſome Meaſure *ſtiffen'd*, at this their full ſtretch : (So that in the greater Veſſels, by long Age, they become *bony*) and the Juices are render'd groſs and glewy, whereby the Perſpiration (for both Reaſons) is conſiderably leſſen'd and impair'd. Now, though in this Account of the Cauſe of the *Gout*, I lay little Streſs on the *relative Smallneſs* of the *leaſt Veſſels*, but am rather inclin'd to attribute it chiefly to their greater Stiffneſs and Tenſion : Yet is it *demonſtrable*, that in the ſame *ſpringy Tube*, full of the ſame Liquor, moving by one conſtant, original Force, its *Diameter* is leſs in a contracted, than a relaxed State ; though the *Velocity* of the included Fluid will be greater in the *Firſt* than in the *Second*, becauſe of the greater Reſiſtance and Springineſs of the *contracted*, than of the *relaxed Tube*. And this is one Reaſon, why Women are leſs ſubject to the *Gout* than Men ; becauſe of the known greater *Laxity* of their *Fibres*. And it is evident from *Obſervation*, as well as Philoſophy, that healthy *fat* Perſons have a leſs Quantity of Blood, and ſmaller Veſſels, than *lean* Perſons, in proportion to their *Bulks*, as every *Surgeon* can atteſt. Their Veſſels are more compreſſed by a Load of Fleſh ; *fat* Perſons are leſs weildy, and ſo are leſs able to ſtretch out their Veſſels to their utmoſt Limits : But principally becauſe that *oily* Subſtance called *Fat*, can never be ſo plentifully ſeparated in the greater, as in

the proportionably leſſer Veſſels, which have run out to the greateſt Length, as is evident from the known Laws of *Secretion:* Even though it be certain that *lean* Perſons can eat and digeſt a great deal more, in reſpect of their Bulk, than *fat* People; which ſhould more plentifully ſupply them with Materials for *Fatning*, were they not carry'd off by larger Veſſels, and more liberal Evacuations.

IV. *Prop.* 2. The Cauſe of an acquired *Gout* in the firſt Perſon, or in thoſe born of ſound Parents, ſeems to me, to be the Abundance of tartarous, urinous, or other Salts, introduc'd into the Blood by the Food. Salts ſeem neither to periſh, nor to be begotten; but to be conſtant and incorruptible Parts of animal and vegetable Bodies. The Delicacy and Flavour of Fleſh and Fiſh, is entirely owing to their abounding with a fine, ſoft, oily, or urinous Salt, as is evident in Veniſon and wild Fowl. Wines of all kinds, have a greater or leſſer Quantity of Tartar in them: And other ſtrong Liquors abound in their peculiar Salts, in proportion to their Strength. Spirits are nothing but a great Quantity of vegetable Salts crowded together in a little Water and Oil. Theſe Salts receiv'd in abundance, but neither ſufficiently broke by the digeſtive Powers, nor driven out of the Habit by due Exerciſe, but by their Plenty and Nearneſs, uniting in greater Cluſters, muſt neceſſarily

neceſſarily form Obſtructions, and give Pain, when by the force of the Circulation, they are thruſt through narrower and ſtiffer * ſmall Veſſels. Nothing either receiv'd or bred within the Body, beſides theſe Salts, can account for this Difference.

V. *Schol.* This may ſeem too *general* a Way of accounting for the more immediate Cauſes of a *particular* Diſtemper; ſince the ſame Principles, with proper Limitations from Circumſtances, will account for moſt *Chronical* Diſeaſes. But, I fear, this is as near the Matter, as juſt *Obſervation*, and ſound *Philoſophy*, will bear us out. To indulge *Imagination*, and ſay, That the ſpecific Cauſe of the *Gout* is an Union of an *urinous* and *acid* Salt (as perhaps the *urinous* may ariſe from an *acid* Salt, united with an Oil, or Sulphur) poſſibly the Appearances of the *Gout*, and the *Materials* out of which it is produced, might make it look, neither without *Veriſimilitude*, nor without a ſpecious *Show*: For it is *Fact*, that abundance of *urinous* Salts diſpoſes towards *Inflammations*; and plenty of *acid* Salts, tears, rends, and excites *Pain*. High ſeaſon'd rich Foods ſupply the *former*, as generous ſtrong Liquors, (the Diet of the *Gouty*, as is afterwards ſhewn) do the *latter*. But theſe *gay*

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* *Capillaries.*

Dreams

Dreams I leave to thoſe, who delight to dwell in the Fools *Paradice*. That in general, the Cauſe of the *Gout* is ſuch as I have deſcrib'd, is evident. (1.) From the hot, twitching, ſcalding Humour, deſcending the Thighs and Legs, on the firſt Attacks of the *Gout*. (2.) From the violent *Inflammations* and *Pain* on the Part where the *Gout* fixes. (3.) From the large *Tumor* ariſing on the Place affected. (4.) From the Swelling of the Veins over this *Tumor*, and from it towards the *Heart*. Which can ariſe from nothing but the Mixture of the *gouty* Humour with the Blood (rendring it more fizy) directed thither by the Order of the *Animal Oeconomy*, and made more perſpicuous, and increas'd by the preſſure of the *Tumor*, and the ſharp Steams iſſuing from it, and piercing the Coats of the Veins. And this Diſpoſition of the *Blood* is carry'd on till the *Veins* enlarge ſo at their Return, that it has Room enough to paſs without Reſiſtance. All theſe ſhew a groſs, ill-condition'd, *Humour*, carried even by the Blood-Veſſels, or ſeparated immediately from the Blood by the ſmall Glands; an *Humour* by far too groſs and ſenſible to reach the *Nerves*, or their Juices. The Nerves, I ſay, whoſe *Perviouſneſs* is uncertain, and the *Fluidity* of their Contents much more ſo. But, to be ſure, their *Minuteneſs* is ſuch, as not to ſuffer ſo groſs an *Humour* to paſs them.

VI. *Coroll.*

VI. *Coroll.* 1. Hence we may learn the Reaſon why, on the firſt Attacks of the *Gout*, in otherwiſe healthy People, the Humours generally fall on the Joints of the Limbs: Becauſe, in the Joints, the ſmalleſt Veſſels are more compreſs'd by the larger Heads or Protuberancy of the Bones, and are thereby rendered narrower, and more readily obſtructed. Theſe Obſtructions fall on the Joints of the Limbs; becauſe of the greater Length of theſe ſmall Veſſels, between the Heart, the Origin of the Motion of all the Fluids, and theſe Joints; their other Extremity: Whereby the Quickneſs of the Circulation diminiſhing, Obſtructions are there more readily form'd.

VII. *Schol.* By the ſmallneſs of the *Glands* in the *Joints*, the natural Coldneſs of theſe Parts, their Diſtance from the Heart, their Compreſſion by the larger Extremities of the Bones, the Weakneſs of the *inward Motion* of the Parts of the Blood, upon one another, and thereby their Readineſs and Diſpoſition to beget Obſtructions there; the *Joints* become more liable to *gouty* Indiſpoſitions. See *Keill*'s *Tentamina*, pag. 123.

VIII. *Coroll.* 2. Hence likewiſe we may ſee the Reaſon, why the firſt Fits, of otherwiſe healthy Perſons, rage and remit once in four

four and twenty Hours. The * Acceſs being at Sun-ſet, and the † Remiſſion about Day-break: Why the whole Fit in ſuch laſts about fourteen Days. And laſtly, Why the particular Acceſſes and Remiſſions of Perſons advanced in Years, and broken with the *Gout*, happen only once in fourteen Days. And why the whole Duration of the Fit is made up of ſeveral ſuch Acceſſes and Remiſſions in equal Times. In the firſt Stages of the *Gout*, the Fluids being leſs ſizy and glutinous, their Salts and Sizineſs are ſooner broken and diſſolved by the Action of the Solids in the Circulation; and are thereby ſooner brought into a Condition to be carried of by Perſpiration; which makes an Acceſs and a Remiſſion. The greater Weight and Groſſneſs of the Air (which hinders Perſpiration) at Sun-ſet, beyond what it is at Day-break, together with the particular Degree of Sizineſs, ſeems to determine the Times. The greater Degrees of Sizineſs in the Fluids of People advanc'd in Years, and broken with the *Gout*, lengthens out the Duration of theſe Acceſſes and Remiſſions. And the preciſe Period of fourteen Days, ſeems to ariſe from the ſpecial Nature of the Sizineſs of the Fluids, and its Reſemblance to that of a regular intermittent Fever. The whole Duration of whoſe

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* *When it begins to rage.* † *When it begins to be eaſier.*

Fits

Fits put together, *Sydenham* has obſerved already, to be equal to fourteen Days. But the particular Explication of all theſe Things, would require more Room than can be allow'd them, in the Bounds I have preſcrib'd to my ſelf. My Friend, if he pleaſes, may conſult *Bellini* on this Head.

IX. *Schol.* *Determin'd* Cauſes produce determin'd Effects, and a determin'd Degree of Sizineſs in the Blood, all other Circumſtances continue the ſame, will require a *determinate* Time to be duly diluted, broken, and thinn'd. In inveterate *Gouts* and decay'd Conſtitutions, the Period of *twenty four Hours* is lengthen'd out into *fourteen Days*. It is demonſtrable, that *chronical* Diſtempers would have their Periods, or terminate of themſelves, as well as acute ones: if the *Cauſe* that produces them, and the Fuel that feeds them, were as readily to be withdrawn in the firſt, as in the laſt Caſe. In *Iſlands*, eſpecially thoſe of our *Northern* Climates, the Inconſtancy of our *Seaſons*, the Inclemency of the *Weather*, the *Intemperance* and *Groſſneſs* in Diet, and the *Inactivity* of the People, make theſe *Periods* leſs obvious and manifeſt, than they might be in *Eaſtern* Countries, and warmer Climates, where all theſe Things came on, and ſubſiſted in a more uniform manner: Nevertheleſs, ev'n amongſt us, there are manifeſt *Footſteps* of theſe *Periods*,

in ſome *chronical* Diſtempers. I have ſeen a *Rheumatiſm* in five or ſix Weeks Time, terminate by meer Abſtinence. I have known an *Anaſarca* perfectly cured in five Months time by obſtinately abſtaining from Drink. I have obſerv'd a *Cachexy*, of many Years ſtanding, from an exceeding low State, in a Month's time, end in a daily Recovery; and theſe *Periods* have generally happen'd about *Auguſt*, or towards the *autumnal Equinox*. Tender, weak, valetudinary, and low People, eſpecially thoſe who labour under Diſeaſes, ariſing from a *relaxed* State of *Nerves* ſink, droop, and decline, towards *Chriſtmas*; and ſeldom get up till towards *Midſummer*. Thoſe who are loweſt, begin ſooner to decline, as they likewiſe get up ſooner, becauſe leſs Force acts more ſtrongly upon them, than upon the others. Many uſeful Obſervations have been made upon the Effects of the *Conjunctions*, and *Oppoſitions* of the two great *Luminaries*, on nervous and *cephalic* Diſeaſes, by the ingenious Dr *Mead* *. On ſome ſuch Perſons, eſpecially the moſt weakly, and diſpirited, the *Sun* has an Influence, much the ſame as it has on *Plants* and *Vegetables*, or on the *Summer Animals* (ſuch as *Inſects*, *Bats*, *Owls*, *Swallows*, *Dormice*, &c. which are in a State of *Inſenſibility*, and *Inactivity*,

* Vide *Mead* de Imperio Solis, & Lunæ, &c.

during

during the *Winter Seaſon*; but whoſe *Juices* are rarified and expanded, the *inward Motion* of the Parts of their Fluids upon one another, increaſed and ſtrengthened, their *Circulation* promoted and enlarged, their *Perſpirations* quickned and augmented, and their *Spirits* chear'd and enliven'd, by the kindly Influences of this *material Deity*. And during his Abſence, the quite contrary happens to them in all theſe Inſtances. They are truly natural *Thermometers*, and their *Juices* rarify, or condenſe. Their *Perſpirations* riſe, or fall, as this external *Source* of Life and Activity influences them. It is paſt all Manner of Doubt, that all acquired chronical Diſtempers, would, in time, terminate of themſelves, have their Periods of remitting and enraging, from the natural *Drains* of the Body, the Actions of the Solids, and the *internal Motion* of the Fluids, if new Fuel were not ſupply'd them from Time to Time.

X. *Coroll.* 3. Hence we may diſcover the Reaſon of the common Obſervation, that gouty Perſons are People of good natural Parts, large Feeders, and long-liv'd: Becauſe the Fibres of the ſmalleſt Veſſels, being more ſtiff and ſpringy than ordinary, the Circulation is briſker, more full and free; whereby the * na-

* *That is Eating, Digeſting, and Evacuating,* &c.

tural Functions are more readily and regularly performed; and therein the beſt Health and trueſt Senſations conſiſt: Strong Health requires liberal Supplies; and both together lengthen out Life.

XI. *Schol.* On the other Hand, this conſtant, and univerſal Obſervation, (*viz.*) That *gouty* Perſons are commonly found ſtrong, healthy, active, acute, and prudent Perſons, is a manifeſt *Demonſtration* of the Truth of the firſt *Propoſition:* All theſe pointing and proclaiming a ſtrong, ſtiff, ſpringy, and contracted State of *Fibres*, and *Nerves:* Such a State of *Fibres* and *Nerves*, being abſolutely neceſſary to ſuch a Conſtitution. And it may not be amiſs to obſerve, that when *Age* and the *Gout* have ſubdu'd, relax'd, and ſoftened the nervous *Syſtem*, all theſe are proportionably impair'd, and therefore a more ſtiff, ſtretched, ſpringy State of the Nerves, and Fibres, is an abſolutely neceſſary Condition towards the *Gout:* And this Condition plainly points out the true Method, both of Cure, and of Relief in it.

XII. *Coroll.* 4. From theſe alſo, we may diſcover what a Fit of the Gout is, to wit, an Effort of Nature, to throw off this Abundance of Salts, through more ſtiff and narrow Strainers *. Salts of all Kinds are more or

* *Secretory Ducts.*

leſs

leſs burning * : The Urinous moſt of all, as is evident from *Spaniſh* Flies, and that unextinguiſhable Subſtance, call'd the *Phoſepheros*, ſo readily and plentifully to be had from human Urine. (The Reaſon of which may be from their pointed Figure, piercing more readily by its being beſmear'd with a light Oil: Or from their greater active Force; or from ſome other Quality, not yet, or perhaps never to be, diſcover'd.) What is certain is this, That Perſons of a large appetite, as *gouty* Perſons generally are, feeding plentifully of Fleſh and Fiſh, and drinking liberally of generous Wines, or other ſtrong Liquors, and uſing, either too little, or too much Exerciſe, muſt neceſſarily overſtock their Blood with theſe fix'd and incorruptible parts of animal and vegetable Bodies; which in their Nature being hard and burning, can't fail, firſt, to raiſe a Tumult and Fever; and then to give violent Pain, as they are driven out of the Habit, through more ſtiff and narrow ſmall Veſſels by the Force of the Circulation: So that a Fit of the *Gout* may be conſider'd, as a *Criſis* of a putrid Fever, wherein the noxious Humour is thrown upon ſome of the Muſcles or Joints of the Body.

XIII. *Coroll.* 5. Hence we may diſcover the Vanity of the Pretenders, to a certain and uni-

* *Cauſtick.*

verſal

verſal Remedy for the *Gout*. For unleſs a Remedy could be found, which at once could change and new-mould the ſolid Parts of human Bodies; alter the Nature and Qualities of animal and vegetable Bodies; and deſtroy Parts that are in their own Nature fix'd and permanent, it is impoſſible it ſhould be certain and univerſal; and how poſſible ſuch a Remedy is, I leave every one to judge.

XIV. *Coroll.* 6. Hence it is evident, there can be only two direct Ways of treating the *Gout*, with any Proſpect of Succeſs. The one is, by ſtretching and winding the Capacities of the ſmall Veſſels, and relaxing * their *Fibres*. The other is, by leſſening the Quantity of the Salts introduc'd into the Fluids by the Food; theſe being the two Antidotes or Oppoſites to the two fundamental Cauſes of acquired *Gouts*.

XV. Here it may be convenient to take notice of the Difference between hereditary and acquired *Gouts*. The latter is produc'd in a Perſon, otherways ſound, from Ignorance or Negligence of the exact Rules of living. For tho' there be a natural Configuration of Parts, that diſpoſes one Man more than another to the *Gout*; yet there might be a Method of Diet order'd which ſhould prevent it. The

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* *Slackning.*

former

former is a Taint * (compounded perhaps of Scurvy, Stone, and Pox) tranſmitted to the Patient, with the Principles of Life, together with a Diſpoſition in this Taint, to unite it ſelf to any Malignity, introduced into the Habit, through Exceſſes.

XVI. *Coroll.* Hence we may obſerve the Neceſſity of a much more ſtrict and careful Management, in hereditary *Gouts*, than what is neceſſary in acquired ones. In the firſt, the *gouty* Humour is ingrain'd and tranſubſtantiated into the Solids, and other Principles of Life, and impoſſible to be rooted out by human Art and Induſtry: The moſt that can be done is, to leſſen and relieve the Symptoms. Whereas in acquir'd *Gouts*, the noxious Humour being more confin'd to the Fluids, a proper Diet, due Exerciſe, and a few well-choſen Remedies, may go a great way; if not to a perfect Cure, yet to make Life tolerably eaſy under them.

XVII. *Schol.* That *Gout*, *Scurvy*, *Pox*, and *Kings-Evil*, are communicated to Poſterity, is certain: And yet on the common Principles of *Generation*, it is not eaſy to imagine, how they can be, unleſs we conceive, that the Groſſneſs of theſe Infections ſubtilizes, as the Principles of *Animal* Bodies leſſen. We ſee

* *Stain.*

in

in *venereal* Diſtempers, that inveterate Degrees of them, and imperfect Cures, leave a ſubtile *Steam*, *Stain*, or *Vapour*, which affects the *Bones*, *Membranes*, and *Nerves*; even, when the groſs Matter, which manifeſts it ſelf in *Ulcers*, has been expelled. I have ſeen the moſt exquiſite Pain, and Miſery, which even *Opium* it ſelf could not ſtun, when no outward Symptom appeared to manifeſt the Diſtemper. I have always ſuſpected (and I think not without reaſon) that the *Valetudinary*, low State, and *nervous* Complaints of the thin, Hereditary, *Hyſteric*, and *Hypochondriac*, were owing to a latent *Scrophulo*, or *Scurvy*: And I have generally found, that ſome time or other, they have manifeſted themſelves. The laſt in foul Faces, groſs, and thick Raſhes, blue ſcurvy Spots, and other out-breakings of the Skin, which by no means could either be kept out, or perfectly cured. And the firſt in chilblain'd Fingers or Toes, ſwell'd and ſchirrous Hands, thick Lips, inflam'd Eyes, white Swellings, or knotted Glands in ſome Parts of the Body; or have generally terminated in *ſcrophulous* Conſumptions, with *Ulcers* or *Tubercles* on the Lungs, in *Fits* or *Convulſions*, or incurable *Looſneſſes*, from knotted *Guts* or *Meſentery*. And this Obſervation has been of ſome uſe to me, in pointing out the combining *Antiſcorbutics*, or *ſcrophulous* Remedies (which do not much differ) together with nervous Remedies;

medies, and a ſtrict Diet, or Regimen, in ſuch Caſes. And this ſhows likewiſe, how uſeful *Bath Waters* are in them, contrary to the Opinion of them, who will not allow them proper in *Vapours* or *Melancholy*.

XVIII. Of all thoſe Things that a *gouty* Perſon can ſafely undertake for his Health, wiſely managed Exerciſe, ſeems that alone, which can beſt anſwer one Part of the firſt Intention, *viz.* The widening the Capacities of the ſmall Veſſels. Labour or Exerciſe aſſiſts the *Gouty* three different Ways: *Firſt*, As it increaſes the * Motion of the Parts of the Fluids among themſelves; ſo that their Salts, by their † ſtriking one againſt another, are broken and made leſs, that they may paſs more readily through the ſmall Veſſels. *Secondly*, As it adds a new and *foreign* Force to the Blood, and thereby promotes its Circulation from the Heart through the ſmall Veſſels; driving ſome of the groſſer Parts of the Fluids through them, which in the ordinary Courſe of the Circulation would not paſs ſo freely; and thereby opening their Obſtructions, and enlarging their Capacities. *Thirdly*, As it increaſes the natural Perſpiration; the Action of the Muſcles in Labour and Exerciſe, and the Spring of the Solids by their multiply'd Efforts, ſqueezing the Strainers of all their

* *Inteſtine Motion.* † *Colliſion.*

Contents. But to make Labour and Exerciſe as uſeful as they may be, two Cautions muſt be added to them: *Firſt*, That they be not too violent, in reſpect of the Patient. For too violent Exerciſe will, neceſſarily, either ſpend the Spirits, whereby the Digeſtions and Circulation will be impaired; and ſo a regular *Gout* be brought into an irregular one: Or by ſhaking all the *gouty* Salts at once upon the Extremities, a regular Fit will be forced out; which, in leſs violent Exerciſe, might have been ſpent by Perſpiration. *Secondly*, That Moderation in Eating and Drinking be joined to it; for commonly *gouty* Perſons are large Feeders; and Exerciſe emptying the Stomach, the Guts and ſmall Veſſels, if the Appetite be ſatisfied to its Craving, the Evil is rather increaſed than diminiſhed thereby.

XIX. There are two direct Ways of leſſening the Quantity of the Salts, which produce the *Gout*. The firſt is, by a total Abſtinence from, or a great Abſtemiouſneſs in, Fleſh, Fiſh, and ſtrong Liquors, which introduce thoſe Salts into human Fluids. But this Courſe is never to be undertaken, but with great Caution, and in the laſt Extremity: For theſe two Reaſons; *Firſt*, Becauſe an entire Vegetable Diet weakens all the digeſtive Powers, and all the Functions of Life; impoveriſhes the whole Maſs of the Fluids impairs the Strength, and diſpirits the Man: And thereby neceſſari-

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ly begets the worſt kind of Hyſterical and Hypochondriacal Diſorders, and all their black and diſmal Conſequences (at leaſt till the Body has been long accuſtomed to it) which is a Diſeaſe far worſe than the *Gout* itſelf: And to which the *Gout* only brings the Patient, in its laſt and fatal Stages. *Secondly*, Becauſe this Diet, once entered upon, is never after to be changed, under the Danger of certain Death, or the moſt violent enraging of all the *Gouty* Symptoms. For a Vegetable Diet, as has been juſt now hinted, weakening the digeſtive Powers, and all the Functions of Life, *&c.* The Patient can never after be brought to bear with a free way of living, without the Hazard of certain Death, or a violent enraging of the *Gouty* Symptoms; as is too plain from many fatal Inſtances. If any Diet is ever to be tried in the *Gout*, it is to be ordered in *Cornaro*'s Method; that is, by living on the white Foods; eating Fleſh and Fiſh of the lighteſt Digeſtion, and drinking generous, unmixed, Wines, both of them in ſmall and conſtantly equal Quantities, in Weight and Meaſure; upon the Craving of the Appetite, and proportioned for the mere Support of Life.

XX. *Schol.* The Caſe of a Perſon is well known to me, who to daily Exerciſe, and riding on Horſe-back, and other proper Remedies, added four Years of a ſtrict *Regimen*, or Diet, to reſtore a groſs *Scorbutic* and *Cachectic*

Habit, which was introduc'd by an *Autumnal* Ague. The firſt Year was ſpent in a gradual Decreaſe from a full to a low Diet. In which, *Breakfaſt* and *Supper* were near a Quart of Aſſes *Milk*; and *Dinner*, boil'd Chicken, Veal, or Lamb, with boil'd Milk, and Water for Drink, and not above a Glaſs of Wine. The two middle Years were ſpent in a rigid *Milk* Diet, religiouſly confined to Bread and *Milk* only. The end was obtain'd, the Juices ſweetned, all the *Scorbutic* Sores heal'd up, the Appetite reſtor'd, the Spirits render'd light and eaſy. The laſt Year was ſpent like the firſt, in a cautious and gradual Entry upon a fuller Diet, with a juſt Senſe of the Danger, either of ſatisfying the Appetite to the full, which then grew craving and ravenous, or advancing too quickly upon ſtrong Food, for which the concoctive Powers were not equal. Three fourths of the whole Diet being *Milk* Meats, and the reſt Fleſh of the lighteſt Digeſtion. Yet had the long continued low Diet, ſo far impoveriſhed the Fluids, cool'd the natural Heat, and relax'd the Solids, that they were not ſufficient even for this ſo ſlow a Change: So that the Perſon in the following Spring, was thrown by it, into a lingring, dangerous, *putrid Fever*, wherein his Life was deſpair'd of by all his *Phyſicians*. The *Prince* of *Condé* alſo, after having long ſuffered, and being quite overcome by the *Gout*, was adviſ'd by his *Phyſicians* for the

Relief of his Pain, to enter upon a *vegetable Diet*, and a total Abſtinence from Fiſh, Fleſh, and Wine. It ſucceeded accordingly, his Pains were relieved, and the *Gout* overcome. But at the Marriage of his Daughter, in the Jollity of the *Feſtival*, being tempted to drink a little Wine. He, from one Step to another, was drawn into his former Way of Living; the *Gout* returned with greater violence than before, and cut him off in a ſhort Time. *Cornaro* tells of himſelf alſo, that being paſt Threeſcore, he was advis'd both by his Friends and *Phyſicians*, to increaſe his conſtant and meaſur'd Diet, by two Ounces of Meat, and two Ounces of Wine only: Becauſe, ſaid they, the *Decays* of Age wanted more liberal Supplies, than the Vigour of Manhood, or the growing Strength of Youth. He for a long Time reſiſted their Importunities, having been by this low, and uniform Diet, recovered from the inſufferable Torments of the *Gout* and *Cholic*, which had render'd his Life very miſerable, for many Years before, into an indolent, calm, and confirm'd State of Health. However at laſt being overcome by them, in leſs than a Year's Time, he was thrown into a dangerous, *malignant Fever*, which almoſt coſt him his Life, eſcaping narrowly through the Force of his Temperance.

XXI. The other direct Way of baniſhing the Salts out of the Habit, is by Evacuations. *Sydenham*,

Sydenham, otherwiſe a moſt accurate Obſerver of Nature, and a moſt judicious Practitioner, has been the occaſion, I think, of a great Miſtake in the Management of the *Gout*; by forbidding almoſt all Evacuations, either in the Fit, or in the Intervals, for fear of weakening the Conſtitution. There are two Seaſons, to wit, Spring and Fall, when the Periodical Fits of regular *Gouts* commonly happen; which I conſider as cardinal and critical Diſcharges, under general and mechanical Influences, for purifying the Blood, and diſcharging the *gouty* Salts: In which Nature is no more to be diſturb'd in its Operations (I mean as to Purging, for even then a gentle, ſlow, conſtant, and uniform Perſpiration and breathing Sweat may be promoted, not only ſafely, but with great Advantage) than in the monthly Purgations of the Sex. But in light, flying Touches of the *Gout*, out of theſe Seaſons; and in the Intervals of the Fits, gentle, warm, ſtomachic Purgers will be an excellent Remedy to ſend theſe a-going, to leſſen the Fits, and lengthen the Intervals. A Perſon out of the Pain and Inflammation of the Fits, and in their Intervals, (except his natural Diſpoſition to breed another Fit) is, to all Intentions of Medicines, the ſame as a well Perſon. And all Medicines levell'd againſt other Diſeaſes incident to human Bodies, may be as ſafely adminiſter'd to a *gouty* (Regard being had to his particular Conſtitution)

as

as to any other Perſon. Wherefore, the general and direct Methods of relieving the *Gout*, are, in the Fits, a gentle, uniform, continu'd Perſpiration and breathing Sweat; In the Intervals, Labour or Exerciſe, and gentle, Stomachic Purgers.

XXII. The Secondary or leſs direct Methods of relieving the *Gout*, are principally theſe two, *Firſt*, Dilution, by proper Liquors. *Secondly*, Strengthners of the Inſtruments of the Digeſtion. Nothing is more likely to thin the Blood; to diſſolve and break the Salts, and keep them at a Diſtance from running into Cluſters, than proper Diluters; as we ſee in Fevers, Rheumatiſms, and other inflammatory Diſtempers. For this Reaſon, among others, it is, that *Bath* and *German Spaw* Waters, and all other *Mineral Chalybeat* Waters; Dwarf-elder Tea; Trefoil Tea; light, quick, Green-Tea; ſmall ſpicy Bitters on Water, and ſuch like, drunk freely, Blood warm, on an empty Stomach, become ſo uſeful in Intervals of the *Gout*. Water is the univerſal Diſſolvent of Salts of all ſorts; and being repleniſh'd with the ſpicy, bitter, and active Parts of other Bodies, it ſtrengthens the Stomach and Bowels; breaks and diſſolves the Salts; cleanſes the inſides of the Veſſels from the Foulneſs that conſtantly adheres to them, and carries it out of the Body, by increas'd Perſpiration and Urine.

XXIII.

XXIII. Strengthners of the Inſtruments of Digeſtion, are an excellent Remedy in the Intervals of the *Gout*. If the Digeſtions be true and good; the Parts of the *Chyle* be made ſufficiently ſmall, and the Circulation be full and compleat (all which are the common Effects of Stomachic Medicines) the Salts will be leſs; the Obſtructions of the ſmall Veſſels fewer, and the Impurities of the Fluids will more eaſily paſs by Perſpiration, and the other Drains of the Body; and ſo the Fits of the *Gout* become more eaſy, and leſs frequent. Among all the Strengthners of the Digeſtions, I would recommend a ſtrong Infuſion of the *Jeſuit*'s Bark in generous Claret, as being the cooleſt Bitter, the moſt powerful Strengthner of relax'd *Fibres* in the Inſtruments of Digeſtion; and the greateſt Antidote of the urinous Salts, eſpecially if joined with *Chalybeats*, and ſome Qualifiers of its maukiſh and nauſeous Taſte. The Bark has the ſame Effect on the Coats and *Fibres* of the Veſſels, that Oak-bark has on raw Leather; and the ſame Effects on the Fluids to prevent their Coagulation; and to render them uniform, that the *Teſtaceous* Powders have on Vinegar, or as they have on Milk, to prevent its Curdling: But more eſpecially, as it produces ſuch Wonders on the Solids and Fluids in intermittent Fevers; to the State and Condition of both which, the Solids and Fluids of *gouty* Perſons bear ſo near

near a Reſemblance, as has been obſerv'd in *Coroll.* 2. Wherever the Bark is proper, I recommend the *Glans Quercina*, or Acorn, as of the ſame Claſs of Medicines, and in ſome Caſes of Relaxation exceeding the other. It is cool and eaſily digeſted; but they do beſt united. All bitter and ſpicy Medicines have more or leſs of the ſame Quality; but heat the Body more, and brace the *Fibres* leſs.

XXIV. *Mercury*, by its Weight, and its conſtantly forming it ſelf in little Spheres (or perhaps from its greater attractive Force) throughout all its poſſible Diviſions, ſeems to offer faireſt, of any internal Medicine, for breaking the *gouty* Salts; for relaxing the *Fibres*; and enlarging the Capacities of the ſmall Veſſels. And the Fact is, that by a full and free Salivation, *gouty* People have been freed from all its Symptoms for ſeveral Years. But it is alſo Matter of Fact, and Experience, that a full and free Salivation does ſo break, rend and tear all the ſmalleſt, tendereſt, and fineſt Veſſels and *Fibres*, that the Body becomes in a worſe State, in reſpect of the future Fits, than it would have been in ſeveral Years time, under the common Symptoms. For tho' a Salivation may open all the Obſtructions of the ſmall Veſſels; cleanſe their Inſides from the Foulneſs that cleaves to them; purify the Blood, and break its ſaline Impurities; yet by its great Weight, and the exceſſive Force it

adds to the Blood; rending and tearing the fineſt Veſſels and *Fibres*; when the *gouty* Perſon comes to his former Diet, and the other Circumſtances of Living; and the Fluids become thereby loaded with their Salts, they ſtick more obſtinately to the Joints, than if the Parts had been ſubdu'd and broken by regular Fits of the *Gout*. So that the Salivation, tho' it baniſh the Fits for ſome time, yet when the Blood is repleniſhed again with *gouty* Salts, the Habit is reduc'd to a worſe Condition, in reſpect of the future Fits, than if they had never been interrupted: And, indeed, it is obſervable, that after a full, or repeated Salivations, the Man is ſeldom or ever the ſame, as to the Quickneſs of Senſation; or the Uſage of the moſt beautiful animal Faculties. But there is an abſolute Neceſſity of having recourſe to *mercurial* Vomits and Purges, when the *Gout* becomes fixt to, and permanent in, a Place, as alſo when it is diſperſed all over the Habit, like a Rheumatiſm. Theſe active Medicines muſt firſt render the Humours fluid, which *Gum Ganiac*, with Diaphoretick *Antimony*, perſiſted in, will afterwards carry off. I come now to conſider the *gouty* Perſon under two different Circumſtances. *Firſt*, under a regular Fit. And, *Secondly*, in the Intervals.

XXV. 1. On the *Firſt* Attack of the Fit, eſpecially while the Fever, that uſhers it in, remains, Dilution is the only Remedy. Fine, clear,

clear, old ſmall Beer, with a little old Mountain, or *Madera* Wine; Water boil'd with a few ſpicy Seeds, mix'd with theſe Wines: Water Gruel with ſome Wine or Hartſhorn-Drink with Cinnamon; and little or no Fleſh Meat, will ſucceed beſt during all the time of the Fever. After the Fit is diſtinctly form'd, the milder Cordial and Stomachic Medicines, which promote a gentle breathing Sweat (I mean in the more compounded and tedious Fits of the *Gout*, chiefly in Perſons advanc'd in Years) ſuch as *Gaſcoign*'s Powder, *Goa* Stone, *Bezoar*; Sir *Walter Rawleigh*'s Cordial, *Diaſcordium*, Confection of *Alkermes*, and the like, waſh'd down with clear Blood-warm Sack-whey; in every Draught of which ten or fifteen Drops of Spirit of Hartſhorn has been firſt pour'd; with Flannel on the Parts, and much lying a Bed; ſuch a Method, and ſuch Medicines, I ſay, will beſt forward the Fit. Towards, the Decline, the ſtronger, warmer, ſpicy and Stomachic Medicines; ſuch as *Serpentary* Root, *Caſſamunair*, *Zedoary*, old *Venice* Treacle, *Electuarium de Ovo*, and ſuch like; with a few Grains of *Camphire*, and Salt of *Vipers*; and a good Stomach Bitter on Wine to waſh them down, will finiſh this Affair, ſtrengthen the Bowels, and prevent the Recoil of the *gouty* Humour on them. And here it may be taken Notice of, that as the Fever, that uſhers in the *Gout*, is, ſo will the Fit be: If the Fever is ſhort and ſharp,

the Fit will be ſo likewiſe, in regular *Gouts*: If it be feeble, long and lingering, the Fit will be ſuch alſo. In the Management of the foregoing Method and Medicines, two Cautions are to be minded: *Firſt*, That during the whole Fit, Liquors may be more freely and ſafely indulg'd, than ſolid Foods. For Repletion from ſolid Foods, in a Fit of the *Gout*, might be of fatal Conſequence, by rendring a regular Fit of the *Gout* irregular, whereas Fluids will certainly paſs, either by Perſpiration, Sweating, or Urine. *Secondly*, The Cordial Medicines are always to be regulated, by their Lightneſs on, and Agreeableneſs to, the Stomach of the Patient; (for whatever makes him ſick, will more or leſs draw in the *gouty* Humour on the Stomach) and by their not rendering him more hot and reſtleſs, than the *Gout* it ſelf would naturally make him: For if they produce an agreeable Senſation on the Stomach, and do not inflame, they will neceſſarily procure Coolneſs and Quiet.

XXVI. Here it may be conſider'd, whether *Opiats* may be ſafely given in a Fit of the *Gout*, to procure Reſt, and alleviate Pain. In the general, it is the ſafeſt ſide, not to adminiſter any kind of *Opiats* in the Fits; becauſe they conſtantly pall the Appetite, and leave a Nauſeating, and perhaps a Reaching on the Stomach, the readieſt way to bring the *Gout* there. But in Extremities, when the Patient

Patient has been many Days without Reſt, and the Pain becomes intolerable, all other Means failing, or equally dangerous, *Opiats* may be ſo qualified, and their miſchievous Effects ſo bridled by joining ſpicy, nervous, and ſtomachic Medicines to them, that they may become an excellent Remedy. Thus liquid *Laudanum*, with Tincture of *Caſtor*, of Snakeweed, of *Diambra*, of Saffron, *Sal Volatile*, compound Spirit of Lavender, hyſterick Water, and ſome agreeable ſimple Water; ſome of theſe mix'd in a due Proportion, and proper Doſe, will not only procure Reſt, and eaſe Pain, but anſwer all the other Intentions in the Cure of a Fit of the *Gout*. Thus alſo *London Laudanum*, with old *Venice* Treacle, or *Mithridate*, Serpentary Root, and unſcented Species of *Diambra*, made into a *Bolus*, with any agreeable Syrup, and cautioned, as before, will produce the ſame Effect.

XXVII. As ſoon as the Pain is almoſt gone, and the Swelling and Weakneſs only remain, nothing will more quicken and finiſh the Cure, and ſtrengthen the weaken'd Parts, than gentle warm, ſtomachic and ſpicy Purgers, dos'd and repeated according to the Strength of the Patient; by carrying out of the Habit, the more groſs and unperſpirable Remains of the *gouty* Humour. This premis'd, eſpecially after long and ſevere Fits, which have impaired the Strength, and waſted the muſcular Fleſh;

Fleſh; I ſhould adviſe Aſs's Milk with Pearl, half a Pint, or a Pint, in the Morning early, and at five or ſix a-Clock in the Afternoon; to lengthen out the Morning Sleep, to pulp up the exhauſted Muſcles, to cool and refreſh the parch'd *Fibres*, and keep the Body ſoluble; which Aſs's Milk commonly does. And to keep up the Appetite, which the Milk commonly palls, and to prevent its too cooling effects on the Stomach, a light Bitter made of Gentian, Cinnamon, and Orange Peel only, the laſt double of the other two, infus'd on Sherry or White-wine, and taken two Hours before Meals, may be uſed moſt conveniently. This Courſe might be continued for two or three Weeks: After which I ſhould order a Courſe of *Bath* or *German Spaw* Waters with Steel, Riding, a light White-food Diet, and generous Wines drunk temperately.

XXVIII. It is in the Intervals of the Fits that any thing great or probable is to be undertaken for the Relief or Cure of the *gouty*. The Methods, both general and particular, I have touch'd upon. I come now to recommend ſome ſpecial Medicines, which have been found uſeful in this Caſe. It is certain that great Abſtinence from Fleſh, Fiſh, and Wines, would prevent the Fluids from being overloaded with *gouty* Salts. It is alſo certain, that if the Food be carried out before it is digeſted, it will be pretty near the ſame

Thing, as if the Quantity carry'd out, had not been taken down. Now if a Medicine can be found, that without weakening the Stomach and Bowels, ſhall carry off the greater part of the Food, before it is quite robb'd of its Salts, it can't fail to be of great Uſe in the Intervals of the *Gout*. For this purpoſe, I would recommend fine Rhubarb, taken regularly once, twice, or oftner, a Week, in ſuch a Doſe, as to procure two or three Motions: For theſe Reaſons, *Firſt*, Becauſe it is an excellent Stomach Bitter, as is evident from its Taſte, and from the ſharp Appetite it gives thoſe that take it frequently. *Secondly*, Becauſe it is one of the nobleſt Aſtringents hitherto known, as is evident from its Cure of Fluxes, and inteſtine *Hæmorrhages*; and from the Tightneſs it leaves on the Bowels. *Thirdly*, Becauſe it requires neither Diet, nor keeping warm, nor any other particular Management; and yet taken frequently and regularly, it will carry off any Proportion of the Food one pleaſes; and ſo reduce the Diet, as near as needs be, to *Carnaro*'s, which, in Article XIII, has been ſhewn to be of ſo excellent Uſe in the *Gout*. I knew a noble Lord, of great Worth and much *Gout*, who, by taking from the Hands of a Quack, a Dram of Rhubarb, ting'd with *Cochineal* to diſguiſe it, every Morning for the Space of ſix Weeks, liv'd in Health for four Years after, without any Symptom of it.

XXIX.

XXIX. *Schol.* That Regimen, which with proper Medicines, and due Exerciſe, I have found moſt ſucceſsful of any, for the Cure of *chronical* Diſtempers, even the moſt deplorable, has been by retaining a ſmall Proportion of Fleſh (of younger Animals, and of a whitiſh Colour) and Wine (of the lighteſt, and moſt generous kind) and making up the reſt of the Meal with *Milk* Meats, *Sago*, *Rice*, and other vegetable Foods: The whole of a moderate, but equal Quantity. By this Method, the Strength of the *concoctive Powers* have been ſupported, the Vigour of the *Juices* have been maintain'd, the *Maſs* has been gradually altered, and the Danger of raiſing the Diet higher (when Health, a ſtronger Digeſtion, and a perfect recovery, have made it proper) has been prevented. For certain it is, this Method, if inſtituted within, or not long after the beginning of the *Decline* of Life (which from the Authority of an inſpir'd *King*, and *Prophet*, I place about Thirty-five) in due time with proper Remedies (the great *Organs* not being ſpoil'd) will bring on a Period, or Concluſion, to any *chronical* Diſtemper whatſoever. I have endeavour'd by ſeveral Trials on my ſelf, and others, to determine the Quantity of Food that will preſerve a Perſon of a confirm'd State of Health, near to, or already paſt, the *Meridian* of Life, that uſes no violent bodily Labour, in a due Plight, freedom of Spirits, and

and wonted Vigour, in theſe our *Northern Climates.* And I have fixed it (as near as ſuch a various Subject can be limited) in about eight Ounces of Fleſh Meat (Beef and Pork excepted, which I think ought cautiouſly to be uſed by thoſe that live according to Rule, by Reaſon of the Rankneſs of their Juices, and their Hardneſs of Digeſtion) about twelve Ounces of Bread, or other vegetable Food, and about a Pint of old generous Wine, or Liquors of the ſame Strength. Thoſe who ſtudy hard, keep the Houſe conſtantly, or would cure a *chronical* Diſtemper, muſt even abate of this Quantity. I make no account of watery Liquors in this Eſtimate, ſuch as *Tea*, *Coffee*, and the like. Nor do I think *Fiſh* a good Diet for thoſe who are ſubject to *chronical* Diſtempers, which moſt are, who are near the decline of Life; for 'tis certain, the Bodies of all Animals, at laſt, partake of the Nature of their Food; but it is to be minded, that no quantity or quality of Food will long preſerve any one in perfect Health, who uſes not due *Exerciſe*, and proper Relaxations, for without theſe, no Food can be duly concocted.

XXX. It is worth here taking Notice, that all the Preparations of this Medicine ſerve only to ſpoil it: And that it is beſt taken in a ſpoonful of Soup, or any other agreeable Liquor, immediately before Dinner, or chew'd

in a Morning faſting. But to thoſe to whom its Mawkiſhneſs is nauſeous, I would recommend this Form. *Take* Gentian *and* Zedoary *of each a Dram*, Serpentary *Root*, *and unſcented Species of* Diambra, *of each half a Dram*; Cochineal *and* Saffron *of each a Scruple*; Orange-Peel *an Ounce*; *infuſe in a Quart of Mountain, in a warm Place, twenty-four Hours, ſtrain, and to the Liquor add three Ounces of the beſt* Rhubarb; Salt of Wormwood *a Dram and an half*; *ſet in a warm Sand-heat twelve Hours*; *and then ſtrain a ſecond time.* Of this four Spoonfuls every Night, or every other Night, as occaſion requir'd, I have found an excellent Remedy in this and other chronical Caſes. Where no preparations of *Rhubarb* will agree with the Conſtitution, as there are many ſuch, then *Elixir Salutis*, Tincture of *Hiera Picra*; *a* Solution of *Gum Guaiac*, or the *Scotch* Pills, might take place; but that all the Preparation of *Aloes* are apt to throw out both *Gout* and *Piles.* However in this matter there is great Variety; out of which every one may fit themſelves with what is moſt agreeable to their own Conſtitution; which if they uſe regularly and frequently, they cannot fail to prevent violent Fits of the *Gout*, and perhaps moſt other, both acute and chronical Diſtempers.

XXXI. *Schol.* I have known ſome eminent *Phyſicians*, that have had ſo little regard to

Sydenham's

Sydenham's Opinion in this Matter, that in the Fit of the *Gout* it ſelf, at whatever time it happen'd, they never ſcrupled to drive it off, both from themſelves and others, by ſtrong, quick, and active *Purges*, which they repeated every Morning, whilſt the *Fit* continu'd, and at Night quieted the Tumults they excited, and expell'd the *gouty* Humours, introduc'd into the Habit by them, with *cordial* and warming Medicines mix'd with *Opiates*. This Method they continu'd till the Pain was gone, and the *Tumour* ſubſided. And to prevent its return, carry off all the remaining *goutiſh* Humours, and to ſtrengthen the Habit, they purſu'd gentle Stomach *Purges*, *Aromatick Diluters*, and warm *Alteratives*, till a ſtrong Conſtitution was obtained: And moſt certain it is, this Method will cure any Fit of the *Gout*, how obſtinate ſoever, and that in a few Days. The Reaſons they gave for this Proceedure, was, that by ſuch a Method, inflammatory *Rheumatiſms*, (of the Nature of which the *Gout* was) *Eryſipela's*, *Schirrous*, and even *hot Tumours*, were ſafely, quickly, and certainly (without Relapſes or Danger) carry'd off; and that the Danger ariſing in common Practice, from purging off a *Fit* of the *Gout*, was, that Care was not taken, to prevent its returning, or its falling on ſome other noble Parts, by continuing theſe gentler, warm *Purges*, *Diluters*, *Alteratives*, and *Strengthners*, to carry off entirely the *gouty* Remains, to

ſweeten the ſharp Humours, and to ſtrengthen the *relaxed* Solids. But this I mention only to illuſtrate and confirm my Advice, of gentle *Stomach Purges*, in the Intervals of the *Gout*. For I am of Opinion, the moſt dangerous, and active Part of the *gouty* Humour, is a great deal too ſubtile (tho' an *Humour* certainly it muſt be) to be carried off by any groſs evacuation whatſoever. And many *fatal* Experiences have confirmed the Danger of tampering after ſuch a manner (whatever Authority it may have to defend it, or ſpecious Reaſons to enforce it) to ſuffer any cautious Perſon to venture upon it.

XXXII. Next to Rhubarb, and all Circumſtances conſidered, even far before it. I would recommend *Sulphur*, as one of the beſt Remedies in the Intervals of the *Gout*. It is but in little Uſe at preſent in Phyſick, except in the *Itch*, and the *Piles*; and yet in the whole Extent of the *Materia Medica*, I know not a more ſafe and more active Medicine. Its wonderful Efficacy, and particular manner, of operating in theſe common Caſes, might, I think, have encouraged its Trial in other chronical Caſes, eſpecially conſidering the Facility of its Working, and the little Trouble it gives in taking it. Its principal Qualities are theſe. 1. The Parts of *Sulphur*, and thoſe of Light and Fire, act mutually upon one another, more powerfully than thoſe of other Bodies.

It

It is to their *Sulphur* that Bodies owe the reflecting and refracting Virtues; from whence its Inflammability proceeds *. The Particles of *Sulphurous* Bodies receive and retain thoſe of Light and Fire, more ſtrongly than any other Bodies: And the Rays of Light and Particles of Fire, ſeparate, move, and turn the Parts of *Sulphurous* Bodies into Fire and Flame. 2. The Parts of *Sulphurous* Bodies are very ſmall, even ſmaller than thoſe of Water it ſelf, whereby it comes to paſs that they will enter thoſe ſmall Veſſels, where Water it ſelf (our beſt and moſt univerſal Diluent) can't come, this is evident from hence, that Water will not diſſolve *Sulphur*, and that no Moiſture will ſtick to fat Subſtances, or the Feathers of Water Fowl: As alſo from its Cure of all cutaneous Foulneſs; which it could never effectuate but by entring all thoſe ſmalleſt Veſſels, which ſcarce any other Medicine can enter. And *laſtly*, by its diſſolving the fizy Juices of the ſmalleſt internal *Glands*, when obſtructed; particularly thoſe of the *Lungs*, *Meſentery* and *Rectum*; as in the humorous *Aſthma*, *Scrophula*, and *Piles*. 3. *Sulphurous* Bodies will readily unite with, and deſtroy the Effects of all *Saline* Particles, but eſpecially thoſe of the acid kind. And in this their great Energy ſeems to conſiſt. *Sulphur* yields

* Vide *Sir* Iſaac Newton's *Treatiſe of Light and Colours*, 1 Edit. *in* Engliſh, *towards the end*.

the

the moſt piercing, active, and agreeable *Acid* in the World; ſuch as Spirit of *Sulphur*, *Gas* of *Sulphur*, and the like. 4. The fat and oily Parts of *Sulphur*, like other fat and unctuous Bodies, are the lighteſt, the moſt coherent, and the moſt ſpringy of all Bodies. Theſe two laſt Qualities are moſt manifeſt from the artificial *Sulphur* made of Oyl of Turpentine and Spirit of *Vitriol* (the ſtrongeſt Glew, and the moſt penetrating Acid) duly digeſted, and carefully manag'd, which in all Reſpects is the ſame with natural *Sulphur*. "No "Body denies (ſays *Tournefort* in his Voyage "to the *Levant*, Pag. 122. Part. I. *Engliſh* "Edit.) that *Sulphur* is only a fat Subſtance, "fix'd by an acid Spirit: The *Sulphur* which "is artificially made, and the *Analyſis* of "common *Sulphur*, put this truth out of all "Diſpute. For the Sea Water being fat by "the Oyl of the Sea Fiſh continually corrupting there, and bitter and ſaltiſh from its ſa-"line Rocks, produces in proper Neſts natural "*Sulphur*." And Sir *Iſaac Newton* ſays, in his laſt Edition of his Optics, *pag.* 359. "By "diſſolving flour of Brimſtone in Oyl of Tur-"pentine, and diſtilling the Solution, it is "found, that *Sulphur* is compos'd of an inflam-"mable thick Oyl, or fat *Bitumen*, an acid "Salt, a very thick Earth, and a little Me-"tal: The three firſt were found not much "unequal to one another, the fourth in ſo "ſmall a Quantity, as ſcarce to be worth the

"conſidering."

" conſidering." Join all theſe Qualities together, and you have one of the moſt admirable Remedies in the World, for all Intentions in the Cure of the *Gout:* By its agreeable Taſte and Lightneſs on the Stomach, (eſpecially when waſh'd down with any milky Vehicle) its Tenacity, Ropineſs and Elaſticity; the Smallneſs of its Parts; their Efficacy in deſtroying the Miſchief of all ſaline Particles, with their natural Warmth, join'd to the Activity of its acid Salt, (making it a kind of natural Soap) it enters the ſmall Veſſels, where no other Diluent, hitherto known, can come; cleanſes their Inſides from the Foulneſs that ſticks to them; imbibes and retains all the *gouty* Salts and carries them out of the Body by Perſpiration; ſoftens, ſmooths, and relaxes the parch'd and ſtiffen'd *Fibres*; and by leaving ſome of its oily Parts on their Surfaces, ſheaths and defends them from the Points of the Salts afterwards introduc'd. And the Fact is, from repeated Trials I can recommend *Sulphur*, as a moſt powerful Remedy in the Intervals of the *Gout*. For I have known half a Dram of powder'd *Sulphur*, or Flour of Brimſtone, taken regularly twice a Day in a Spoonful of Milk, prevent the Fit for many Years: And leſſen both its Pain and Duration when it happen'd: For it mov'd the Body gently once or twice a Day. I have in my Poſſeſſion Teſtimonies under the Hands of ſome treated and tended by my ſelf; and of others

others of undoubted Credit, witneſſing to the great Succeſs of this Medicine in the Intervals of the *Gout*. Nothing hitherto diſcover'd, I believe, equals it obſtinately perſiſted in.

XXXIII. *Schol.* An ingenious *Gentleman* has lately recommended *Camphire*, as an admirable Remedy in the *Gout*; I heartily wiſh it may be found as beneficial, as he thinks it will be, both for the ſake of himſelf, and that of others. I have try'd it to prevent *Stranguries* ariſing from *Bliſters*, to remedy *Hæmorrhages* in the *Small-Pox*; in *Hyſteric* Fits, and Convulſions: In ſtopping the Torrent of *white* Water in *Vapours*, and in the Fit of the *Gout*, to raiſe a gentle Perſpiration. In all which Caſes, I have found it ſometimes more, and ſometimes leſs ſucceſsful, and in the laſt I particularly recommend it. But it is ſo nauſeous in the Stomach, ſo conſtantly Heartburns, in whatever Form given, is never ſo readily diſſolv'd in any Liquor, as Spirit of Wine, whoſe Heat it thus ſo increaſes, that it almoſt becomes a *Cauſtic* on the Stomach: And thus given as an Alterative, would probably do more Hurt, even by its ſcalding Vehicle, than it could do good by its Virtues. That unleſs its Doſe be very ſmall, ſome more convenient Form of giving it be found out, or ſome Method be contriv'd to leſſen its exceſſive Heat. I ſhould be much afraid of giving it inwardly, for any long Time. As to the Preference

Preference he gives to it before *Sulphur*; all I can ſay is, that I am ready to name a great many perſons of Condition and Parts, who are now taking, or have taken, *Sulphur* in the Intervals of the *Gout*, and none without Succeſs, more, or leſs: According to their Age, Conſtitution, and Management in other Reſpects. I think it unjuſtifiable to mention their Names without their leave, and I have no juſt Reaſon to aſk it, not pretending to any *Noſtrum* or Secret. But having plainly diſcovered all that I know in the matter, ſo that every Body is left to his own Liberty: And when *Camphire* has been as often, and more ſucceſsfully try'd, I ſhall moſt readily give it the Preference, being much leſs concerned for Reputation, than for being uſeful in Proportion to my poor Abilities. Tho' I own, I deſpair of finding a better Remedy in the Interval of the Fits of the *Gout*, than *Sulphur* rightly managed.

XXXIV. Eſpecially if to theſe be added a plentiful Dilution by ſome Blood-warm Infuſion of a ſpicy and diuretick Plant in Water, ſo as to provoke a gentle breathing Sweat, and paſs freely by Urine. Thus large Draughts of Sage, Dwarf-elder, Buck-bean, or Green-Tea; but eſpecially of weak Whey made on old Mountain, drunk Blood-warm, and on an empty Stomach, and join'd to any of the now mention'd Medicines, will be of great Advantage in the Intervals of the *Gout*; by diluting

ting and breaking its Salts, and carrying them off by Perſpiration and Urine. And certainly *Roſelli's* Drops, (perhaps the *Tinctura Metallorum* ſomehow alter'd) which were ſaid to work gently by Stool and Sweat, in the Hands of a prudent and knowing Phyſician, had been an admirable Remedy, as anſwering both the Intentions mention'd, in the Intervals of the Fits; and even in the Fits themſelves, it had not been without its Uſe (always excepting the *vernal* and *autumnal* regular Fits) had he dealt with recent *Gouts*, and firm Conſtitutions only. That which I would particularly recommend here, is, a weak Decoction of the *BARK* of *Sarſa* Root [in the *BARK* the Virtues of the Plants chiefly conſiſt: For being repleniſh'd with moſt part of, if not all, the Juice circulating Veſſels, it contains all its Salts and moſt active Parts; and being ſpungy and tender, it is thereby more eaſily digeſted: And where Roots are moſt in Uſe, the *BARK* of the Root is more eminently uſeful, for the Reaſons aſſign'd: As alſo becauſe, towards the End of the *Autumn*, when Roots are gather'd, the Cold has already driven the Juices into their *BARK*. And this may be one Reaſon why the famous Pox-Doctor ſucceeds in ſome Caſes, when miſmanag'd *mercurial* Treatments have fail'd: His Diet-Drink chiefly conſiſts of a Decoction of the Bark of this Root: His Pill is *Mercurial*, perhaps the *Arcanum Corallinum*, or *Panacæa*, and theſe two per-

perſiſted in for ſo long a time muſt neceſſarily ſweeten the tainted Juices, and expel the entangled and groſſer *mercurial* Parts, which cluſtering together, could not perform the Circulation, but were retain'd within the Habit by former miſmanag'd Salivations, and thereby rendered ineffectual to the Cure; eſpecially, if to theſe be added, the low and ſtarving Diet he preſcribes; for I have heard of a famous Sea-Commander, who effectually cur'd the firſt Stages of *Venereal* Diſtempers by living twenty Days on *Water Gruel* only, in which a little *Cream* of *Tartar* had been firſt diſſolv'd; and higher Degrees of the ſame by the like Diet continued twice the Time;] with a little Milk, drunk freely Blood-warm every Morning, which I have known wonderfully relieve *gouty* Perſons, when drunk all the Winter between the *Cardinal* Fits. And even Cows Milk warm, taken for Breakfaſt and Supper, has been of great Service to thoſe *gouty* Perſons who drink not much Wine; for thoſe who drink Wine freely, have too hot and ſour Stomachs to deal in Milk.

XXXV. Even drinking freely of light, clear, warm Spring Water after full Meals, and indulging in ſtrong Liquors, will be found of great Uſe in the intervals of the *Gout*. It is well known that warm Water alone, drunk in a Morning faſting freely, and at Meals, and its Heat, its Dilution, and cleanſing Qualities,

has been a ſovereign Remedy in reſtoring decay'd Appetites, and ſtrengthening weak Digeſtions, when other more pompous Medicines have failed. *Lower* very juſtly obſerves, that Perſons that have drunk beyond the Rules of Temperance, may be much relieved from the ill Effects of it, by expoſing themſelves to the free Air, to cool the Blood, and to force off the Liquors by Urine. I am of Opinion, were there neither Sin nor Shame in it, as there are eminently both, a *gouty* Perſon, ought to avoid Intemperance, as he would avoid the Bite of a Snake or mad Dog. But ſince ſuch Accidents do happen, let the *gouty* Perſon, after the Exceſs either in Meat or Drink, ſwill down as much fair Water as his Stomach will bear, before he go to Bed; whereby he'll reap theſe Advantages: *Firſt*, Either the Contents of the Stomach will be thrown upwards, and he freed from a great part of the Load. Or, Secondly, Both Meat and Drink will be much diluted: and the Labour and Expence of Spirits in Digeſtion much ſaved. And *Thirdly*, The *gouty* Salts will thereby be diſſolv'd and diſtanc'd from one another; And ſo be more readily carry'd off by the free Perſpiration, Sweating and Urine, which enſue.

XXXVI. But beyond all other Things, a well order'd Courſe of *Bath* Waters, with *Chalybeats* and warm Bitters, and a frequent and regular Uſe of Stomach Purgers will be found

found to ſucceed beſt in *gouty*, as well as other chronical Caſes. The learn'd have been divided, and much perplex'd about the Heat of *Bath* Waters. I have always endeavour'd to account to my ſelf for it, from the common Experiment of mixing Filings of *Steel*, and Powder of *Sulphur*, working them into a Paſte with Water, and putting them into a Cellar, under a Cock, dropping Water ſlowly and regularly; the Paſte will ferment to ſuch a Degree, that the Water running from it ſhall be of the ſame Heat and Virtue with the *Bath* Waters; tho' not ſo pleaſant, nor ſo well fitted to human Bodies. This is a common Experiment, and theſe are the only natural Bodies known, which meeting together will produce Heat in Water, without artificial Fires. *Tournefort*, in the Place before mention'd ſays, " 'Tis certain that Filings of Iron ſteep'd in " common Water will grow conſiderably " warm, and much more ſo in Sea Water: And " if you mingle therewith ſome *Sulphur* pow- " der'd, you'll ſee this Mixture really burn." Sir *Iſaac Newton*, in his laſt Edition of his Optics, *Page* 354. ſays, " That even the groſs " Body of *Sulphur* powder'd, and with an e- " qual Weight of Iron Filings, and a little Wa- " ter made into a Paſte, acts upon the Iron; " and in five or ſix Hours grows too hot to be " touch'd, and emits a Flame." That the Heat of the *Bath* Waters is owing to a Principle within themſelves, is evident, from their

retain-

retaining it longer than any other Water, heated to the ſame Degree, will. Wherefore there can be no Neceſſity of having Recourſe to *Vulcano*'s or ſubterraneous Fires, to account for this Appearance. There are no burning Mountains known in this our *Northern* Climate; and 'tis pretty hard to conceive, how Fires ſhould have burn'd ſo long under Ground without a Vent, or any other remarkable Sign. The *Sulphur* in the *Bath* Waters is evident to the Senſes, ſwimming in large Cluſters on the Tops of the *Baths* mixed with Earth, and ſome vegetable Subſtances, wherewith the Guides commonly gild Silver; and is found an excellent Remedy in *Scurvies*, *Leproſies*, *Ringworms*, and other *Foulneſs* of the Skin. The Steel is manifeſted by the blueiſh Tincture given to the Water from the Pump, by an Infuſion of Nut-gall. It is true, this Tincture is neither ſo deep, nor is it to be had from the Water, in any ſhort time after it comes hot from the Pump, thereby to manifeſt any great Quantity of Steel in the Compoſition, ſuch as can have the full Proportion to the Experiment now mention'd. But, to ſet this in a clearer Light, let us put together theſe Conſiderations. *Firſt*, That upon Diſtillation of *Bath* Water, there remains little in the Bottom of the Glaſs but the common *Calx* or Sea-ſalt, that is found in the Diſtillation of ſpring Water, if we except ſome Sand or Earth, that is forc'd up by the violence of the Pump; where-

fore

fore the *Bath* Waters not being impregnated with any Quantity of a ſaline Mixture, can retain nothing in their own proper Subſtance but the lighteſt Parts of the Steel and *Sulphur*. *Secondly*, That this Water is as fully impregnated with *Sulphur*, as it can bear, has been already ſhewn: And that there muſt be a greater Proportion of Steel in *Bath* Water than is manifeſted to the Senſes, or diſcover'd by any Experiment hitherto made, is evident from its healing Effects, which no known Medicine but Steel can bring about, or account for: None but thoſe who have ſeen it, can believe the wonderful Efficacy it has, in moſt chronical Caſes. What, but Steel, in a few Weeks, can make the Blood, from a white blueiſh or tallow Hue, reſiſting the Knife, like Glew, ſwimming in its *Serum*, like an Iſland amidſt the Ocean, look all of a Piece, of a Scarlet Colour, and a due Proportion between its nouriſhing and its watery Parts. Nothing but Steel can make a pale aſh-colour'd Countenance, hollow and deep Eyes, no Appetite, little Strength and leſs Sleep, eat, and drink, and ſleep, look gay and ſleek, like the beſt Health. Thouſands of ſuch Inſtances may be ſeen every Seaſon at theſe healthful Springs. *Thirdly*, The Effects of *Sulphur* in bridling the ſenſible Appearances and Operations of moſt active Medicines, is very well known. Inſtances of which, in natural Bodies, are *Antimony* and native *Cinnabar*; in artificial ones, *Æthiops*

Mineral, and *Cinnabar* of *Antimony*: In all which the *Mercury* is ſo bridl'd up by the *Sulphur*, that none of their ſenſible Operations and Appearances are felt, while they produce the moſt wonderful Changes on animal Bodies. I cannot paſs over *Æthiops* Mineral without preſſing its more univerſal Uſe than, or ought I know, it has yet had in common Practice. It is one of the moſt certain and univerſal Alteratives, if dos'd ſufficiently, and long enough perſiſting in, of all the *Diſpenſatory*. It radically extirpates the Itch, the Piles, ſcorbutick and ſcrophulous Ulcers; all cutaneous Foulneſſes; all inflammation and fluxions of the Eyes; all internal Ulcers, Rheumatiſms, white Swellings; ſharp Humours in the Stomach and Guts, and almoſt all Diſtempers ariſing from ſizy Juices. I ſay, it cures theſe, if Art can do it; for ſome of theſe (like hereditary *Gouts*) are ſo tranſubſtantiated into the Solids, that nothing but a new Conformation of Parts can cure them, It may be given almoſt to half an Ounce a Day, eſpecially with interſpers'd *Mercurial* Purges, without Trouble, or any ſenſible Operation, and continu'd for a Twelve-month, if one pleaſes. The fineſt *Sulphur*, and fitteſt to make *Æthiops* of, is common *Sulphur* powder'd, and boil'd ſeven or eight times in ſpring Water, whereby it becomes as light on the Stomach as prepared Pearl, and as effectual in the Caſes mentioned, as the celebrated *Sulphur* of *Aix la Chapelle*

Chapelle Waters. But to return to the Buſineſs.

XXXVII. *Schol.* I have had frequent Opportunities of trying *Æthiops Mineral* in different Caſes, ſince the firſt Edition of this Treatiſe, and never without Succeſs. Amongſt others, I try'd it on a Perſon of an exceeding groſs corpulent Habit, who had paſs'd the *Meridian* of Life, for a ſpreading, foul, *Scorbutic* Ulcer, which had affected the whole Ancle, for more than a Span length quite round, and was pretty deep in the Out-ſide. He took three Drams made up with the Syrup of Lemons, twice a Day for four Months ſucceſſively, and a gentle *mercurial* Purge once in ten Days: This with a low, cool, Diet, and proper Dreſſings, heal'd it up quite, when 'twas generally thought, ſcarce any Medicine, eſpecially ſo eaſy an one, would ever finiſh ſuch a Cure, in ſuch a Conſtitution. The *Æthiops* was taken without any Diſguſt, Trouble, or Interruption of Buſineſs; purging gently once or twice a Day: And it was obſervable, (and it is for the ſake of this Obſervation chiefly, that I mention this Inſtance) that the very *Æthiops* it ſelf, after the Body had been fully repleniſh'd with it, in two Months Time, forc'd it ſelf through the ſound Parts of the Leg and Skin, and ſtuck to thoſe Parts of the Plaiſter, that covered them, in its proper Subſtance, and Colour: I very

well know, that *ſcorbutic Ulcers* will throw out a *ſanious* and black Stuff: But this appeared chiefly on thoſe Parts which covered the ſound Fleſh, and diſappear'd a few Days after the *Æthiops* was omitted to be taken. Which ſhews, how readily this Medicine paſſes through the ſmalleſt Veſſels of the *Glands*; and indeed *Sulphur*, tho' taken inwardly only, is quickly ſmell'd in the Clothes of the Patient, and by diſcolouring the very Money in his Pocket. But more eſpecially, when joined with *Mercury*. This very Method never fails to cure Opthalmia's, even ſcrophulous Ones, and is a moſt certain Remedy in an Ulcer of the *Bladder*, as I have always found, if given in a ſufficient Doſe, and perſiſted in a ſufficient Time.

XXXVIII. The Sum of all then is, ſince the *Bath* Waters derive their Heat from a Principle within themſelves; ſince no natural Body, but *Sulphur* and Iron can produce ſuch a Degree of Heat, as is in them; ſince nothing but Steel can produce thoſe wonderful Cures on human Bodies, which *Bath* Waters do; ſince *Sulphur* will lock up, and bridle the ſenſible Appearances and Effects of the moſt active Bodies, and yet not deſtroy their healthful and medical Virtues; it is plain, that *Bath* Waters muſt owe their Heat to a Mixture of ſteely and ſulphurous Particles; and their healthful Effects, to a greater Proportion of

Steel,

Steel, than is ſenſible, or eaſily diſcoverable by any Experiment hitherto made, join'd to a light *Sulphur*, whoſe Virtues and Efficacy in all chronical Caſes, we have already ſhewn. The Mountains which ſurround the Place, which every Body now knows, to be but the Neſts of Minerals, and the Receptacles of the Waters, which feed the Springs, (which Mountains are continued even to the Sea) confirm this Opinion. The Manner I conceive thus, The Dews drilling and dropping through the Cranies of the Mountains, fall upon a Bed of Iron Oar, and are there as fully impregnated with *Chalybeat* Particles as ſuch Water can bear; and gently owzing down upon a Neſt of *Sulphur*, and there fermenting to ſuch a Degree, that requiring more Room, they bubble up at the Foot of the Mountains, with their ſulphurous Spoils, and furniſh out this healing and balſamick Fluid. All hot Waters ſeem chiefly to conſiſt of theſe two Principles: and to differ only as the *Sulphur* or *Steel* predominates in them. Where the *Sulphur* predominates they are hotter, more nauſeous, and more purgative. Of the three hot *European* Waters of Note, the *Aix la Chapelle*, *Bourbon*, and *Bath*; the firſt abounds more eminently in *Sulphur*, which makes its Heat, Nauſeouſneſs, and purgative Faculty ſo great, that few weak Stomachs can bear its Heat and Nauſeouſneſs, and fewer weak Conſtitutions, the Violence

of its purging. The *Bourbon* are of a middle Nature, between the *Aix la Chapelle* and the *Bath* Waters, and are leſs hot, nauſeous, and purgative, than the *Aix la Chapelle*, but more than the *Bath* Waters. The *Bath* partake leſs of the *Sulphur* and more of the *Steel* than either of theſe two; and are by far the moſt pleaſant; of a milky Taſte, never purge, except they be drunk either too faſt, or in too great Quantities, and always mend the Appetite, and raiſe the Spirits. The weakeſt hot Waters are but of little Uſe, except in the loweſt Caſes, and hectick or conſumptive Conſtitutions; but for medical Uſes, the weaker hot Waters may be made pretty near equal to the ſtronger by Evaporation, as to the ſulphurous Principle; as the ſtronger may be brought down to the weaker by Dilution, as I have experienc'd; tho' Nature be always the wiſeſt and moſt perfect Operator. But neither the ſame Proportion of *Steel*, nor *Sulphur*, nor Heat, indifferently fit all Conſtitutions. Generally the Strength (*i. e.* the Quantity of *Steel* and *Sulphur*) of the ſame hot Waters is in Proportion to their Heat; and therefore to fit the ſame Waters to weaker Conſtitutions, they need only be drunk proportionably cooler.

XXXIX. The *Bath* Waters having ſuch an Origin, and ſuch Qualities, muſt needs be an excellent Remedy in the *Gout*, and other chronical

chronical Caſes, for theſe Reaſons; 1. Becauſe of their Warmth, juſt ſuited to the Wants of Nature, and a little above the Heat of human Bodies, ſufficient to introduce a foreign Warmth and Motion to cold and decay'd Bowels and Fluids; whereby the natural Warmth and ſlow Circulation is increas'd and enliven'd. 2. This, with its agreeable Taſte and milky Softneſs, makes it ſit ſo eaſily on the Stomach, and become ſo excellent a Vehicle, to waſh into the Blood, other proper and ſpecifick Medicines, without that Nauſeouſneſs and Fret on the Spirits, which all other hot Waters, hitherto known; or that Chillyneſs and Damp, which all cold Mineral Waters give; whereby they are render'd uſeleſs or hurtful in ſome low and nervous Caſes. To theſe add, 3. Their *Chalybeat* Principle, ſo peculiarly lock'd up in *Sulphur*, that the Patient reaps all the Benefit and healthful Effects of the beſt Preparations of this Medicine (and what are not two ſuch powerful Medicines combin'd, able to effect?) without the nauſeous Taſte, and frequent Diſorders upon the Stomach, that every other way of giving *Steel* produces. 4. The *Sulphur* united with the *Steel*, makes it a natural kind of Soap, for cleanſing the Inſides of the Veſſels from the Foulneſs that cleaves to them; and for opening the Obſtructions of the ſmall Veſſels. But 5. That which, together with the others, makes it ſpecifick in the *Gout*, is, its relaxing Quality,

Quality, whereby it ſoftens and ſupples the rigid and ſtiff *Fibres*, ſo as the *gouty* Humours may paſs freely by Perſpiration. Much more might be ſaid of this wonderful Remedy provided by the Hand of Nature, to relieve the Miſeries of human Life; but this the innumerable Crouds of Cripples of all ſorts, and thoſe other Perſons made miſerable by chronical Diſtempers, ſent thence, every Year, cur'd, or reliev'd, do witneſs, more convincingly, than either Philoſophy or Rhetorick can.

XL. I will here remove two Difficulties: The *Firſt* is, concerning Bathing in the Intervals of the *Gout*. The only Reaſon given for this Difficulty is, leſt the *gouty* Humour ſhould be driven inwards upon the Bowels. But this ſeems to me a mere groundleſs Jealouſy: For in regular *Gouts*, when the Fit is over, it is to be ſuppos'd, that the *gouty* Fluid or Matter is moſtly or altogether ſpent, and the Fluid in a healthy ſound Condition. And therefore it might be as reaſonably doubted if in the Intervals of two putrid Fevers (of which many have had more than two in their Life-time) a Perſon might ſafely bathe. There is no Queſtion, but that a *gouty* Perſon may both as ſafely bathe, and take any Medicine, for any incident Diſeaſe, as any other Perſon; regard being had to his particular Conſtitution. And 'tis Matter of Fact, that thoſe who have been crippl'd by the fixing of the *gouty* Salts upon

upon the Joints, or diſabl'd by the Tenderneſs of the Parts, have been extremely relieved by a long Courſe of drinking and bathing in theſe hot Waters, which by relaxing the *Fibres*, diſſolving the ſizy Humours, diluting the *gouty* Salts, and making them paſs by Perſpiration, have reſtor'd them to the Uſe of their Limbs.

XLI. *Schol.* It is capable of Demonſtration, that the *Force*, *Preſſure*, and *Weight* of the *Bath* Waters in *bathing*, is ſufficient to counter-act the Force of the *Perſpiration* ſome *Millions* of Times; and conſequently, that theſe Waters *relaxing* the Fibres of all the Veſſels, and ſoaking thro' the *Scarf-ſkin*, and even thro' the Coats of the ſmall Veſſels, are introduc'd into the ſmalleſt *Glands*, and convey'd by the returning Veins into the Maſs of the Blood, and by the Force of the Circulation, aſſiſt in opening the Obſtructions thro' the whole Habit; and this accounts for the wonderful Efficacy of *bathing* in *white Swellings*, *Palſies*, *ſcorbutic Drineſſes* of the Skin, *ſcrophulous* Sores, and *Tumours*, *nervous* waſtings of the Limbs, *ſciatical* Pains of the Joints, cold *Rheumatiſms*, and Weakneſſes after the *Gout*. And this will ſtill be more evident, if the Doctrine of the *Attraction* of *animal* Bodies on the incumbent Atmoſphere, lately ſo much improved by Dr *James Keil*, be ſuppoſed true. It is many Years ſince I

was

was informed by a *Gentleman* of great Ingenuity, that having a good deal of Money on a Horſe, which was to run for the Plate at *New-Market*, and the *Rider* dying not many Days before the time appointed for the Courſe; he had undertaken to ride himſelf, and was obliged by Faſting, Watching, and Exerciſe, to bring down his Body to Horſeman's weight; That after the Match was over, and he exactly weighed at the Poſt, he had rode immediately home, and having drunk up a pint of Chicken-broth only, which might weigh about a pound, got to Bed, and ſlept twelve Hours, and weighing again under the ſame Circumſtances as before, found he had got in the whole about three pounds, if I remember right: Whereby he concluded, That his exhauſted Body had drawn in about two pounds of the circumambient Air. This more manifeſtly ſhews, how the *Bath* Waters being hot, and conſequently more active, may be drawn in, and get thro' the Pores of the Skin into the Blood-Veſſels, and there concur with what is drunk down towards thoſe kindly Effects, *Bathing* commonly produces. And 'tis impoſſible to account for thoſe copious, and profuſe Sweats, Perſons (if they lie long in Bed after *Bathing*) run into, but that their Bodies are fill'd with theſe Waters, like a ſoaked Spunge. But the weak, and low ſpirited, are never to be ſuffered to run into thoſe: Which are prevented, by either not

going into, or by being only a ſhort Time in, Bed.

XLII. It is ſomewhat uncommon, that *Bathing* which for many hundred Years has wrought ſuch Cures, as we have on Record, and ſingly maintain'd ſo long the Credit and Reputation of *Bath*; ſhould for this laſt Century (in which only *drinking* the Waters have been in uſe) have fallen into ſuch Diſgrace, that it is very far from being now the chief Thing People come to *Bath* for. Before *drinking* the *Bath Water* came to be ſo much us'd, fix'd or wandering *Pains*, Stiffneſs, or Contractions on the *Tendons*, *Lameneſs*, or *waſted* Limbs, *Palſies*, or *Rheumatiſms*, were the chief Diſtempers People came to *Bath* for. But now ſince all other *chronical* Diſtempers whatſoever, are relieved either by *bathing* or *drinking*: If People will *bathe* indifferently, without Advice, without duly preparing their Bodies, and cleanſing the alimentary Paſſages, without any diſtinct Knowledge of their Caſe, their Strength, the proper Seaſon of *bathing*, or the Time they ought to ſtay in at once; there muſt neceſſarily happen (as there have happen'd) unlucky Accidents, which tend to diſcourage, and diſgrace *bathing* in general. On the other hand, if *thoſe* who attend on *bathing* will undertake more than they can manage, or duly tend at one Time; ſome muſt neceſſarily be kept in longer than

 their

their Strength will ſuffer, or their Caſe requires. Theſe have been the Sources of the late neglect, and contempt of *Bathing*. But I am well ſatisfy'd, was *Bathing* managed prudently and diſcreetly; there are but few *chronical* Caſes, in which it might not be uſeful, and in which it might not contribute with *Drinking*, and other proper Remedies, towards a *Cure*, or a Relief. If, on the one Side, we do but conſider of what Uſe, and Reputation *Hot-bathing* was amongſt the ancient *Romans*, and to what extravagant Expences they run to make their *Baths* convenient, or beautiful: If we conſider, that moſt *chronical* Diſtempers are attended with want of due *Perſpiration*, and are therefore generally of the cold and *Phlegmatic* Kind, and are always produced by *Obſtructions* from ſizy Juices: On the other Hand, if we reflect on what was hinted above, that the hot Water in *bathing* was ſuck'd in, and attracted thro' the Skin, into the returning *Veins*, and was thereby put in a Capacity, to aſſiſt with what is drunk down, to waſh off *Obſtructions* of the ſmall Veſſels, to thin, and dilute the Blood, and *glandular* Juices, to warm, enliven, actuate, and nouriſh, the waſted and decay'd Parts: We ſhall readily conclude, that *bathing* prudently managed, nay be extreamly beneficial in moſt *chronical* Diſtempers. That *bathing* therefore may be performed in the beſt Manner poſſible, we muſt firſt diſtin-

guiſh thoſe Diſtempers which might ſuffer by it, from thoſe which will be benefited by it. And thoſe are chiefly of three Kinds; (1.) Thoſe Diſtempers which impair the *rational* Faculties, or affect the *Head* with Pain, or Giddineſs. Becauſe *Hot-bathing* might ſend Fumes, or Vapours upwards, and ſo increaſe theſe Diſtempers, ſuch are *hyſteric* Diſorders, *Convulſions*, *Epileſies* &c. While the Fit laſts, a *Vertigo*, or Head-ach from a foul Stomach, *&c.* (2.) Thoſe which any ways affect the Lungs. Becauſe *Hot-bathing*, *increaſing* the *Velocity* of the Blood, may occaſion a *Pleuriſy*, or *Peripneumonia*, or a ſpitting of Blood in ſuch Caſes. (3.) Thoſe which are attended with *Inflammations*, moveable *Tumors*, or with flitting *Pains*, ſuch as the *Gout*, or an inflammatory *Rheumatiſm:* becauſe *Hot-bathing* may increaſe the firſt, or *tranſlate* the latter. Theſe excepted, I know no *chronical* Caſe (but when in their laſt Extremities) which might not be benefited by moderate, and diſcreet *Bathing*, which might ſcour the foul *Tubes*, open the *obſtructed* Ones, increaſe the natural Heat, and encourage a due *Perſpiration.* I ſhall conclude with ſubjoining a general Rule, whereby to know if on Trial *Bathing* agrees, and has not been continued too long in the whole, or each ſingle Time, *viz.* If it neither ſink the Spirits, waſte the Strength, nor weaken the Appetite, then it is certainly beneficial; for *Hot-bathing*

being of the Claſs of *Evacuations*, if it carry nothing off, but faulty Humours, it can produce none of the mention'd Effects; and if it evacuates theſe, it muſt needs be beneficial; and, on the contrary, if it ſpends the nouriſhing Juices, and carry off more than the Party can well ſpare, it muſt be hurtful.

XLIII. It is obſervable from *Guidot's* Experiments on *Bath-waters* *, That the Water either expoſed to the common and open Air, or cork'd up and ſeal'd in a Bottle, did for a much longer Time retain its Virtue of *tincturing* a purpliſh Blue with *Nut-gall* in *clear froſty* Weather, than in *heavy moiſt* Weather, *i. e.* It retain'd its *chalybeat* principle, much longer in *Froſt*, and clear Weather, than in *warm* and *moiſt* Weather: The Truth is, no Body could have been long at *Bath*, but muſt have obſerved, that the Waters ſucceeded better, quickned the Appetite more, made the Digeſtions ſtronger, and rais'd the Spirits higher, in a clear, quick, dry Seaſon, than in *moiſt*, *warm*, *heavy* Weather; and in Fact, in ſuch a Seaſon as this firſt is, they ſurpaſs all the Methods of producing ſuch an Effect I have ever ſeen. To which two Cauſes concur, the greater Quantity of a ſubtile, active, *chalybeat* Principle preſerved in the Water, and the greater *Tightneſs*, and Firmneſs produced in

* *Vide* Guidot's *Experiments on* Bath-Waters.

the

the Fibres by the *cold*, *clean*, *dry* Weather: But what I would chiefly obſerve from the mentioned Experiments, is, that the *chalybeat* Principle is ſo *fine*, *ſubtile*, and *active*, that in a few Hours, nay Minutes, it will evaporate thro' a Cork, and ſeal'd Glaſs-Bottle, and may be *retain'd* by the meer Action of the circumambient Air, its *Nitre*, and different Gravity, for ſome conſiderable Time: Which ſhews, how this ſo ſubtile and volatile a *chalybeat* Medicine, may be convey'd from the Stomach, even to the great and complicated Diſtance of the moſt minute Nerve, the moſt readily, and quickly: Which the elementary Water thus actuated, reaches much ſooner, than any artificial Preparation of *Steel* poſſibly can. And thereby becomes ſo admirable a Medicine in relax'd *Nerves*, and *nervous* Diſtempers, to which the *Bath* Waters, actuated by this ſubtile penetrating and powerful *chalybeat* Principle, concur inwardly in *drinking* them, and outwardly in *bathing*, by their being drawn in thro' the Skin, into the ſmall Veſſels, as may be ſeen in the preceding Articles, about *Bathing*: As to the ſmall Quantity of *Steel* thus introduced, it ſeems generally ſufficient for the real wants of Nature, but in *chronical* Diſeaſes, may be eaſily ſupply'd by larger Doſes of artificial *Steel*, when the other has prepar'd the way. And certainly in giving both Steel and Bitters, 'tis ſafeſt, and moſt prudent to begin low, and with

with ſmaller Doſes, and to riſe, as the Pulſe and Strength riſes: And as Uſage has made ſmaller Doſes leſs effectual; I remember to have obſerved in ſome of the great and ſagacious Dr *Radcliff*'s *Bills*, four or five Drops of *Mynſicht*'s *Tincture* of *Steel*, with a few Drops of *Elixir Proprietatis* in a ſimple Water, preſcrib'd as a *Chalybeat Bitter*, even to grown Perſons. This I freely own, in the *Novitiate* of my Obſervations, I thought very ſimple. I have had good Reaſon to condemn my raſh Judgment ſince, and to acknowledge it prudent, and judicious, to begin in ſome low Caſes with ſuch ſmall Doſes.

XLIV. The other Difficulty is, how the ſame hot Water ſhould relax contracted *Fibres*, as in the *Gout* and *Rheumatiſm*; and yet contract and brace relax'd *Fibres*, as in the Palſy and waſted Limbs. That the Matter of Fact is ſo, is paſt all doubt in theſe and many other Caſes of Contraction and Relaxation. But to clear up this, we need only to conſider what Contraction and Relaxation are. Since all the Fluids of the Body are contain'd in Veſſels, Contraction can ariſe from nothing but from the Blood and other Fluids (or whatever is the Cauſe of muſcular Motion) their being retain'd and obſtructed by their Sizineſs; or from ſome external Injury, in the Subſtance of the Muſcle it ſelf; whereby it becomes fuller and firmer, and ſo acts as upon its Office

of

of Contraction. Relaxation, upon the other Hand, is an Obſtruction of the Nerves or Veſſels of the Fluids, before they arrive at the Muſcles; as is ſeen in Palſies, and the nervous *Atrophy* of the Limbs; ſo that in both Caſes, Obſtructions are the Cauſe both of Contraction and Relaxation. Wherefore, whatever Medicine can diſſolve the Sizineſs of the Fluids; open the Obſtructions of the ſmall Veſſels, make the Perſpiration full and free, and brace the *Fibre*; will both contract Relaxations, and relax Contractions: And that theſe are ſome of the Effects of *Bath* Waters, has, I think, been made ſufficiently appear.

XLV. If it be enquired into, what other Caſes, beſides the *Gout*, *Bath* Waters may be uſeful in; the Anſwer will be obvious from the Account now laid down; to wit, That they muſt be beneficial in all Caſes, where *Steel* or *Sulphur* is; that is, in almoſt all chronical Caſes whatſoever. In acute and inflammatory Caſes, in all Caſes attended with a ſtrong, quick Pulſe, no *mineral* Water, nor *chalybeat* Medicine can be proper. But in all other Caſes (excepting thoſe only attended with a Bleeding or *Hæmorrhage*) they are not only ſafe, but exceedingly beneficial. More particularly, their wonderful Efficacy has been often experienc'd in *Cachexies*, *Scurvies*: in the *Stone*, *Rheumatiſm* and *Jaundice*; in *hypochondriacal* and *hyſterical* Affections; in

in *Vapours* and *Melancholy*; in *Palſies*, *Epilepſies*, and other *cephalic* and *nervous* Diſtempers; in Diſorders of the *Stomach* and *Bowels*; Obſtructions of the *Liver* and *Gall-bladder*; in *green* and *breeding* Sickneſs; in *Barrenneſs*, and *Weakneſs* after Child-birth; in Obſtructions of the *monthly* Purgations; and all other peculiar Diſeaſes of the *Sex*. And truly, if a Perſon afflicted with a low, broken, or tender Conſtitution, ſuffering under the tedious Pains and Inquietudes of any of the lingering Diſtempers now mention'd, where the *Viſcera* or Bowels are yet ſound, would know the fitteſt Place in *Britain* to ſpend their Life-time with the greateſt Eaſe and Pleaſure; take all the Advantages of the Place together, the Agreeableneſs of the Waters to the Stomach; the Certainty of their procuring a good Appetite, when it fails; and the no leſs certain Conſequence thereupon, Freedom and Chearfulneſs of Spirits; the regular Way of Living; the Excellency of the Proviſions; the Warmneſs, Cleanneſs and Neatneſs of the Houſing; the Conveniency of the free, freſh, and open Air of the neighbouring Downs for Exerciſe; the Eaſineſs of the Amuſements; and the Advantage of what Converſation one deſires; I ſay, taking all theſe Advantages together, I can affirm from near twenty Years Experience, without Suſpicion of Flattery, or Fear of Contradiction, that *Bath* is the Place.

XLVI.

XLVI. Some wiſe and frugal People think the mere drinking of theſe Waters, for ſome Time, without taking any Medicine, either before or with them, may be ſufficient to remove any of the chronical Ails they are good for; but thoſe, if they are really ill, in any other manner, except mere Loſs of Appetite, are generally convinc'd, upon Trial, at their own Expence, that they neither ought to begin a Courſe of the *Bath* Waters, without a previous cleanſing of the Stomach and Bowels, leſt they waſh into the Blood through the *Lacteals*, by the perpetual Dilution of the *Bath* Waters, thoſe Impurities, which conſtantly cleave to them; not that they ought to expect a perfect Cure of a long-breeding and lingering Diſtemper, without the Aſſiſtance of thoſe other Medicines which are reckon'd Specifick in the Caſe; and to which the *Bath* Waters are ſo pleaſant and ſo aſſiſtant a Vehicle: For it is but Prudence to bring all the Forces one can raiſe againſt ſo potent and ſo formidable an Enemy as a chronical Diſtemper.

XLVII. It is not poſſible to lay down a general Rule, about the Quantity of *Bath* Waters, which it is convenient to drink daily; that being to be varied according to ſome Circumſtances of the Patient, and the Nature of the Diſtemper: Strong, full and large Bo-

dies bear more Waters than tender, thin, and leſſer ones; the younger more than the elder; thoſe of ſtrong and firm, than thoſe of weak and relax'd *Nerves*; thoſe who labour under the *Gravel* and *Rheumatiſm*, than thoſe who are diſorder'd in the *alimentary* Paſſages, or are ſubject to *ſcorbutic* or *nervous* Weakneſſes, and the like. But in general, it were to be wiſh'd, that *People* who come to *Bath* for their Healths, drunk leſs daily than they commonly do; and allow'd more Time for a chronical Diſtemper. I think it may be ſafely advanc'd; that any Quantity greater than an *Engliſh Quart*, in a Morning, drunk in two Hours Time, half a Pint every half Hour, is more than what is reaſonable. For, drinking in this Proportion, all the reſt of the Day, at Meals, *to wit*, in the Afternoon, and going to Bed, they muſt take down no leſs than five Pounds in about ſixteen Hours; *viz.* two Pounds in the Morning, a Pint and an half with Wine at Dinner, half a Pound in the Afternoon, and as much at Supper, and at going to Bed. This every Body muſt ſee is fully ſufficient to anſwer all the Intentions of drinking *mineral* Waters. A greater Quantity than this will ſerve only to diſtend and *relax* the alimentary Paſſages; to force its way through the largeſt, and moſt potent *Tubes*; and to propagate the Circulation through the Branches and *Inoſculations* of the arger Arteries and Veins, where the leaſt

Foul-

Foulneſs and feweſt Obſtructions can happen: So that it will ſcarce ever reach the fineſt capillary Veſſels, in which alone the Danger lies. And the late *ingenious* and *learned* Dr *James Keil* * has made it evident, that the moſt expeditious Way of altering the whole Maſs of the Blood, by *mineral* Waters, is, by ſmall and frequent Draughts. In moſt Caſes a *Pint* in a Morning is ſufficient, and in low Conſtitutions and Diſorders in the alimentary Paſſages, tending to vomiting and purging, *half a Pint* is enough; and whatever Quantity is to be drunk, 'tis always beſt to take it in ſmall Quantities, and at good Diſtances, provided it come within the Compaſs of the Morning. What is drunk at Meals, tho' cold, yet being freſh, and not altogether drain'd of its Principles and Virtues, contributes near as much to the Cure, as that which is taken in the Morning. The Afternoon and Evening's Draughts are more *arbitrary*, and muſt depend upon the Obſervation of the Patient, as he finds them agreeable to his Stomach, and ſit eaſily or not: Where too great Quantities have not been ſwallowed down in a Morning, they are very proper, provided they be in Proportion to the Morning's Quantity, and never taken under four or five Hours after Dinner; and that at Night, not under

* Pag. 39. *Tentam. Medici Phyſic. Jac. Keil.*

two or three Hours after Supper; theſe Times being the moſt proper to aſſiſt the Digeſtion, and carry off the Remains of the Food. But the truth is, as nothing is more neceſſary, in a Courſe of theſe Waters, than ſetting out right at firſt; ſo nothing requires more the Experience and Judgment of a Phyſician, than the accommodating the previous Preparations, the Quantities to be drunk, and the Medicines to be taken with them, to the Diſtemper, and the Conſtitution of the Patient. For theſe once ſettled, the reſt generally goes on ſucceſsfully.

XLVIII. It is equally impoſſible to determine the moſt proper *Seaſon* for drinking *Bath* Waters, as it is to determine the moſt probable *Seaſon* for falling ill of a *chronical* Diſtemper, generally ſpeaking, moſt chronical Diſeaſes rage *Spring* and *Fall:* And Cuſtom has made theſe Months, *Seaſons* for the *Bath:* But the Waters are ever the ſame, no real Alteration having ever been obſerved in them from Times, or *Seaſons*, tho' there may be ſome little Variation of their ſenſible Qualities, from the Variation of the *Air*, and *Weather*. In the hotteſt Weather, they are giv'n off for a *Month* ſometimes, by thoſe that have drunk them a long Time before. But a great many, eſpecially thoſe of the tenderer Sort, and of cold Conſtitutions, feel the beſt Effects from them in that very Month. And with ſome they are beſt in the coldeſt Weather;

Weather; ſupplying then the Inclemency of the Air, by their kindly Warmth, and paſſing beſt, when the *Fibres* are wound up, and ſhorten'd by the outward Cold, whereby the Circulation becomes briſker, and ſtronger. So that Cuſtom and Conveniency ariſing from outward Circumſtances, have made *Seaſons* for the *Bath*, more than the Nature of the Waters themſelves, or their Fitneſs to produce their benign Effects. The Length of Time People ought to drink the Waters, is as little to be determin'd, as the moſt proper *Seaſon*, or as the Duration of a *chronical* Diſtemper. If they are of the Nature of an Alterative Medicine, (as they moſt certainly are) they are to be continued till they either diſagree, or the *chronical* Diſtemper ceaſes. And this laſt generally requires a Time in Proportion to the inveteracy and obſtinacy of the Diſeaſe, *hereditary* Shapneſſes require more Time than *acquir'd* ones: Slighter Degrees of the ſame Caſe, leſs than more inveterate ones; *nervous* Diſtempers more than thoſe confin'd to the Blood. A Lady of a low *Hyſteric*, and weak Conſtitution, having aſk'd the Famous Dr *Sydenham* (as ſhe told me) how long ſhe might ſafely take Steel; his Anſwer was, that ſhe might ſafely take it for thirty Years, and then begin again, if ſhe continued ill. The Queſtion might be as proper, if it had been aſk'd, how long Time one might continue to eat, and drink; For in Lowneſs, and Diſorder,

Diſorder, if Remedies be neceſſary, Nature will as ſafely admit them, as *Hunger* will ſafely admit of *Food*. I very well know, that Remedies in *chronical* Diſtempers muſt be chang'd, when they become *familiar*, and have no Effect: As the ſame kind of Food ought to be changed, when it becomes nauſeous, and diſguſtful. But then this belongs not to the Queſtion propoſed, which ſuppoſes the Waters have not abated of their firſt Benefit and Relief, but rather increaſe in them, and do better. And on this Suppoſition, there can be no doubt, that they may be ſafely continued till a perfect Cure is obtained, or they fail in their Relief. Some have drunk them ſeveral Years with Advantage, and many cannot live, and be well without them: As is evident from the conſtant *Reſiding* of ſeveral Families here for their Uſe. Whilſt the original Diſorder laſts in any Degree, and the Waters continue to relieve it, they may be uſed; but in all Caſes, and Events, it is ſafeſt, and beſt to let Well alone.

XLIX. It has been alledg'd, that the *Bath* Waters drunk too long, diſpoſes People to Fevers, and *inflammatory* Diſtempers, by over enriching, heating, aud exalting the Blood. But this Objection lies equally againſt all *generous* Foods, and enlivening Medicines. And indeed Temperance, and Moderation in every Thing neceſſary for the Support of Life, is beſt,

beſt, and ſafeſt: And as I juſt now ſaid, it is beſt always to let *Well* alone, but as long as a *chronical* Diſtemper is yet unconquer'd, and unremedied, there can be no hazard of over enriching the Blood, the very Caſe ſuppoſing the quite contrary, *viz.* are remaining *Sizineſs* and *Sharpneſs* in the Blood, and Juices. So that while the original Diſtemper continues, this Effect is not to be fear'd; And when it is conquer'd, the Patient is very indiſcreet, that, out of meer *Wantonneſs*, would play with any Medicine whatever. But this is the Caſe of a very few, and if ever I have met with any ſuch, I have always religiouſly advis'd them to abſtain from Waters, and every Thing elſe, that can be call'd *Medical*; for this Reaſon, amongſt many others, that it made a very uſeful Remedy become leſs effectual, when wanted, by being made more *familiar*. But the truth is, moſt of the chronical Diſtempers, for the Cure of which, *Bath* Waters are recommended, are of the colder Kind, where the Blood is ſizy, poor, and diſpirited: And whilſt any Remains of the Diſtemper laſts, *over-enriching*, or *exalting*, is little to be fear'd: and when they happen, are eaſily remedied by *Bleeding*, *low Diet*, and a *few cooling Purges*.

L. I come now, in the laſt Place, to make a few Obſervations upon irregular *Gouts*. When the original Conſtitution is broken and

impair'd; the Parts ſubdu'd and full of *gouty* Salts; the Force of the Circulation, by Age and frequent Fits, weaken'd, and continu'd only through the Inoſculations of the great Veſſels; the Humour recoils inwardly upon the Bowels: And this is call'd an *irregular Gout*. While it is in any Joint, or any *muſcular* Part, it is ſtill eſteem'd *regular*, tho' the nearer it comes to thoſe outward Parts, the leaſt remote from the Heart and Bowels, the nearer it comes to an irregular One, and ſo conſequently to its laſt and fatal Stages. To which it ſeldom comes unattended; for it generally brings the Stone along with it: Of which it mayn't be amiſs to make this one Obſervation, to wit,

LI. That the Chalk-ſtones voided from the Joints of *gouty* Perſons, and the Gravel Stones found in the Bladders of ſuch as were afflicted with this Diſtemper (perhaps the Stones found ſometimes in the Gall-bladder; but of this I can affirm nothing) are, to all their eſſential Qualities, the ſame. They have both the ſame Colour, Taſte, and Smell; they yield both the ſame Principles, and produce the ſame Appearance, when treated chymically. They have both the ſame internal Texture of Parts, as far as can be known, and even the ſame outward Shape, when unbroken and unconfin'd by hard Subſtances; and they generally happen to one and the ſame Perſon:

At

At leaſt it ſeldom comes to paſs, that any one is much troubled with the *Gout*, but he has the *Stone*, at laſt. And this ſhews that they are both owing to the ſame Conformation of Parts, and other general Cauſes. It is true, ſome have ſuffer'd violently by the *Stone*, who never had the *Gout*; but this may be owing to a ſpecial, hereditary Narrowneſs and Stiffneſs of the Urinary Paſſages, in reſpect of the other Veſſels; and a particular unhappy Texture of Parts, as it happens to ſome other Organs in other perſons: For fat People have ſmaller Veſſels in proportion to their Stature, than lean. But in the general, it is pretty conſtant, that thoſe who ſuffer long under ſevere Fits of the *Gout*, ſeldom eſcape the *Stone*. Dr *Cyprianus*, the late ingenious Cutter for the *Stone*, had obſerv'd, that thoſe who only drunk Malt Liquor were ſeldom ever violently afflicted with that Diſtemper: And among many hundreds he had cut, he had never found one, who had only drunk Ale or Beer. Whether this was owing to the leſſer Quantity of Salts in thoſe Liquors than in Wine, or to the Slipperineſs they induce upon the Bowels and the other Veſſels, or to both, I will not here take upon me to determine. But I believe the Fact is, both in the *Stone* and acquired *Gouts*, that thoſe who only drink Malt Liquors, without Wine or Spirits, are ſeldom violently afflicted with either. And for the ſame Reaſons it comes

to paſs, that the *Gouts* and *Gravel* of the Sex, are ſeldom ſo ſevere as in Men; they generally drinking leſs Wine, and feeding leſs of Fiſh and Fleſh Meats. And that in the *Gouts*, both of Men and Women, who drink no Wine nor Spirits, any little proper Medicine has entirely kept off the pain, and prevented the Fits. I know an antient Gentleman formerly treated pretty roughly by the *Gout*, who drinking only Malt Liquors, has, for ſeveral Years, with certain Succeſs, entirely kept off the Pains and Fits of the *Gout*, by taking only every Morning, regularly, a Pint of warm white Wine Whey, to encourage Perſpiration: Which when he neglects to do, they certainly return. We may conclude, 1. That ſince the *Gout* and *Gravel* Stones are, as to their eſſential Qualities, much the ſame; and ſince 'tis hardly poſſible to account for the breeding of the *Stone*, but from a particular Narrowneſs and Stiffneſs of the Urinary Veſſels, and an abundance of ſuch Salts in the Fluids; it is highly probable that the *Gout* muſt proceed from the ſame general Cauſes: And this is ſome kind of Confirmation of the two firſt Propoſitions laid down in the Beginning of this Diſcourſe. 2. The ſame Method and Medicines that have been deduced from the firſt two Propoſitions, for relieving *gouty* Perſons, in the Intervals of the Fits, will likewiſe ſerve for preventing the Increaſe of the *Stone* and *Gravel:* as we

are certain they do from the beſt Experience and Practice in this Caſe. I will now go on with my Purpoſe, and conſider an irregular *Gout*, fix'd on theſe three great Inſtruments of human Life, the *Head*, the *Stomach*, and *Guts*.

LII. When the *Gout* has ſeiz'd on the Head, it is to be treated as any other violent Head-ach, or as an Inflammation on the Brain, or its Membranes; by bleeding at the Arm or *Jugular*; Cupping on the Back: Bliſtering between the Shoulders, but eſpecially on the Ancles, to give the *gouty* Humour a Vent downwards. In young and ſtrong Conſtitutions, *mercurial* and *antimonial* Vomits will do Wonders, tho' they are ſeldom to be ventur'd upon in any Conſtitution above Forty. The Intention here to be had in View (as in all other irregular *Gouts*) is to expel the *gouty* Humour outwardly upon the Muſcles or Joints, and to fix it there. Wherefore in order to carry it to as great a Diſtance from the noble Organs as may be, a free Paſſage is to be open'd to it on the Limbs, by bliſtering the Ancles and Wriſts; and to promote its Conveyance thither, gentle Stomach Purgers are to be pour'd down continually, two or three Spoonfuls every third Hour, till the Effect is obtain'd. And for this end, I recommend principally Tincture of *Hiera Picra*, with compound Spirit of *Lavender*, and a few Drops of Tincture of *Snakeweed*, and Tincture of

Diambra, as being one of the moſt powerful Expellents, and an excellent Strengthner of the Stomach and Bowels. Its common Miſchief is little to be minded here, for the forcing Blood or the Piles will carry the *gouty* Humour along with it; and theſe Diſorders are but Trifles in reſpect of an irregular *Gout*. This Method will either ſpend the *gouty* Humour, or turn it to a regular Fit. But here Care is to be taken that the Medicines be not too hot, eſpecially in young ſanguine Complexions, leſt an Inflammation on the Brain, or its Membranes, ſhould turn to a Phrenzy or Fever: But there is leſs Danger of this, becauſe the *Gout* in the Head ſeldom happens to the younger, except through much and long Intemperance.

LIII. The *Gout* in the Stomach is a common and leſs dangerous Caſe; for the *Gout* ſeldom comes on and goes off without touching there by the way. In the ſlight Touches of it, any little ſtomach Purge will ſet it a-packing. But it is more obſtinate towards the decline of Life; when it ſettles in a conſtant Pain, nauſeating and kecking in the Stomach. Vomits are reckoned dangerous in the *Gout*, leſt they ſhould drive the Humour on the Stomach: But there can be room for no ſuch a Suſpicion here. Wherefore upon the firſt Seizure of the Stomach, a Vomit is inſtantly to be adminiſtred, and repeated according to the occaſion of

of the Caſe: After that *Hiera Picra*, as is before caution'd and qualify'd, with a hot *Sinapiſm*, or Bliſter on the Ancles: And laſt of all, the higheſt Cordials, and moſt generous Wines, may be freely indulg'd, without fear of Inflammation. Among the Cordials, I would recommend the *Electuarium de Ovo*, as containing *Camphire* (the moſt conſtant and active *Diaphoretic*, and the moſt uſeful one for that Purpoſe) and ſome other of the richeſt Cordials. After all this Management, ſhould the *Gout* ſtill continue in the Stomach, and become habitual (which it ſeldom does after ſuch a Method taken in Time) nothing but a long Courſe of the *Bath* Waters, with *Steel*, Bitters, and gentle Stomach Purgers, a regular Diet, and proper Exerciſe, can effectually cure it.

LIV. Some Perſons, ignorant in the Practice of Phyſick, have made a Difficulty about the Fitneſs of *Vomits*; when the Diſorder is come to perpetual *Reachings*, after Cordials, and Stomach Purges have been try'd in vain. But the weakneſs of ſuch Prejudices, may be ſhewn to the Evidence of a *Demonſtration:* For when there is a perpetual Reaching and Vomiting, that neither Food nor Phyſick will ſtay: After a previous Bleeding to relax the Solids, leſt ſtraining ſhould burſt the ſmall Veſſels, a gentle *Vomit*, ſuch as the *Indian* Root is, is not only *proper*, but even abſo-

lutely *neceſſary*. *Proper*, becauſe *Vomits* do, the moſt effectually of any Thing, throw every Diſorder out of the Habit, and ſo are the moſt probable means to expel the *Gout* on the Extremities, as they do moſt powerfully promote the Eruptions of the *Small-Pox*, *Meaſles*, miliary Bliſters, and other acute Diſtempers of the Skin: (And here I am obliged by many Ties, to do Juſtice to that very worthy and ſkilful Gentleman, Sir *David Hamilton*, *Phyſician*, lately deceas'd, who in our conjunct Attendance on a *Perſon* of *Quality* in this laſt Diſtemper, did to my great Satisfaction, ſo readily foretel every ſucceeding *Change*, and ſo aptly furniſh out a Remedy for every *Accident*, as did abundantly ſhew it *Familiar* to him, and juſtly the *Hiſtory* and *Method* of *Cure* publiſh'd by him, of this tedious, and dangerous *Diſeaſe*, the *miliary Fever*. A Diſeaſe, tho' leſs common, yet as *various*, and as *nice*, and much more tedious than the *Small-Pox* it ſelf. And as they equally facilitate the *Birth*, and the *Stone*; in all which Caſes, if Nature does not the Work promptly, Art is obliged to ſupply it with this Remedy. *Neceſſary*, becauſe when the common Means have fail'd, as is ſuppos'd, there remains only to cleanſe the Stomach from the ſharp Humours, which in all ſuch Caſes adhere to it, by provoking it unto theſe *Convulſions*; and to diſpoſe it to receive, or retain either Food, or the other Means, for the recovery of the

Patient

Patient. Beſides, ſince it is ſuppos'd, the *Gout* has already ſeiz'd the Stomach, cleanſing it by a *Vomit* can never fix it more there; ſince it is likewiſe ſuppos'd, the *Gout* is no where elſe at that Time: And that all the Humours are then lodg'd in the Center of the Body. But as it doth in all other Caſes, and moſt certainly in the tranſient Fits of the *Gout* in the Stomach, it is then the moſt likely Means to promote the *Gout* on the Extremities. *Laſtly*, I know no Rule a Phyſician has to direct him in ſuch Caſes, but following the Indications of Nature, and in what Caſe ſoever perpetual *Vomitings* and *Reachings* happen. If Circumſtances do not forbid it, Nature points out as clearly its Relief from a gentle Vomit, as it does *Rhubarb* in a *Diarrhœa*. The general Prejudices againſt *Vomiting* ariſe from an Ignorance of its *Mechaniſm*, and the Way 'tis performed. I will here ſet down in *Engliſh*, *Tournefort*'s own Words, as he gives the Account of it, *in the Preface to his excellent Piece, of the Plants that grow about* Paris. Mr *Chirac* (ſays he) demonſtrates, in a manner obvious to our Senſes, the *Action* of the *Stomach*, and of the *Organs* employ'd in *Vomiting*. " Having made " a ſmall *Wound* along the *Rib* that lies over " againſt the Navel of a Dog, who had ſwal- " low'd ſome corroſive *Sublimate*, and was " making moſt vehement Endeavours to *Vo-* " *mit*; he ſlipt in his Hand thro' the *Aper-*

" *ture*,

" *ture*, and took hold of the Stomach, and " there he found, that the *Stomach* it ſelf felt " no manner of Force, or Violence: But that " the *Diaphragm*, and the *Muſcles* of the " lower *Belly*, contracting themſelves both " at the ſame Time in an Inſtant: With incre- " dible Force, ſqueez'd the Hand that held " the *Stomach*." For this Account, it is evident, the *Stomach* it ſelf ſuffers no more violence in *Vomiting*, than a Veſſel doth, that is cleans'd by pouring Water into it, and then pouring it out again; for the whole Streſs of the *Vomit* lies on the *Diaphragm*, and the Muſcles of the *lower Belly*: *Organs* ſtrong in themſelves, ſeldom or ever ſubject to any Diſorders, and if at all employ'd in Digeſtion, at leaſt in ſo gentle and uniform a Manner, as can never be ſuſpected of wearing them out. The *Ancients* were ſo poſſeſſed in favour of *Vomiting*, that *Hippocrates* himſelf recommends it to groſs, *well* Perſons, to *vomit* three Times a Month to preſerve their Health. And to lean *well* Ones, to *vomit* twice a Month for the ſame Purpoſe. Whatever be in this, certain it is, where continual *Vomitings* and Reachings are the *Symptom*, a gentle *Vomit* can never be amiſs; when Bleeding has been premis'd, and Circumſtances forbid it not. It were to be wiſh'd, that the *Modern Method* of gentle Stomach Purges, with interſpers'd *ſweating Powders* (as they are called) could ſupply the Place of Vomits, becauſe of the

the Roughneſs of their Operation, and the expence and hurry of Spirits they bring on weak People. But where there is an Overflowing of the Gall, or any Quantity of green, yellow, or black Choler lodg'd in the Bowels (which is generally the Caſe of Hyſteric, and Hypochondriac Perſons, and of thoſe troubled with nervous Diſtempers) by ſuch a Method you will but turn *Birdlime* into *Plaiſter* of *Paris*, and you may purge out the *Guts*, before you move theſe Humours: And even in other Caſes, where viſcid *Phlegm*, or ſharp Crudities are the Cauſes of the Reachings, Purges will ſignify very little towards carrying them off. Theſe viſcid Humours having too long a Journey to march, by that Courſe. As to *Rhubarb*'s purging of Choler, 'tis a meer Deceit, the Colour of the Medicine giving it that *Tincture*, which in working is reckon'd *Choler*. For the Contents of the Bowels take their Colour from that of the purging Medicine: Or the Colour ariſing from the Action of the *Salts*, contain'd in the *Medicine*, upon the *Salts*, contain'd in the *Guts*.

LV. The *Gout* in the Guts, on its firſt Seizure, may be eaſily treated as a bilious *Cholic*; only the *Opiats*, commonly and juſtly given in the *Cholic*, are not here to be uſed, but in the laſt Extremity. But this Diſtemper ought to be treated altogether in the Manner preſcrib'd in the former Section, about the *Gout* in the Stomach.

LVI. There remains but one Diſtinction more of the *Gout*, and one which has not hitherto been much conſider'd: For as the *Cholic* or *Aſthma* is, ſo the *Gout* may be, divided into the Humorous and *Nervous*; tho' this Diſtinction depends more upon the Complexion of the Patient, than the abſtracted Nature of the Diſtemper. The Humorous *Gout* happens only to People of groſſer Habits, more robuſt Conſtitutions, and more ſtiff and ſpringy *Fibres*, and is the *Gout* which I have been hitherto treating. All I can further add to what has been ſaid, is, that under the Fit white Wines are more eligible than red; becauſe thoſe part more readily with their Spirits, and are leſs aſtringent than theſe. And for the ſame Reaſon in the Intervals, the red is preferable to the white: Tho' neither of them, in either Caſe, be uſeful or neceſſary, but becauſe Cuſtom or Habit, which it is not ſafe to alter ſuddenly, has made them ſo. For in all the *Ottoman* Empire, where little Fleſh Meat, and no Wine is uſed; and in *Spain*, where they uſe them very moderately; and among the wild Mountaineers in the *northern* Countries; and the lower Rank of the People in every Country, where they can procure neither, there is little or no *Gout*. Rubbing the Part affected with a ſoft Hand, or warm Napkin, as ſtrongly as the Patient can bear it, is the ready way to make the Humour perſpire in the

the Fit. And cold Bathing, and Rubbing with a Fleſh-bruſh, Morning and Night, are ſome of the moſt certain outward Means, to bring Strength and Nouriſhment into it, in the Intervals.

LVII. *Schol.* I have had ſome Reflections about the Preference between old *French* Claret, and old *Portugal*, or *Spaniſh* Wines, in the Intervals of the *Gout*. The generality give into the latter Opinion: But I very much doubt, if with any juſt Reaſon, or certain Obſervation. Without all peradventure, *French* Wine will more readily throw out a Fit of the *Gout*, than thoſe others. But that, in my Opinion, is ſo far from being an Argument againſt it, that it is in its Favour; for certain it is, that a ſingle Bout, or two, of hard Drinking in *French* Claret, (and theſe are more than ſufficient to throw out a Fit of the *Gout*) cannot ſtore the Blood with ſuch Plenty of *gouty* Matter, as is ſufficient to furniſh out a Fit. Nature works by ſlower Degrees, and ſuch a drinking *Bout* can no otherwiſe produce a Fit of the *Gout*, than by the Wine's Aſtringency, ſtrengthning the Stomach, and bracing the Fibres of the Veſſels, and by its generous Warmth, ſupplying plenty of Spirits, the Force of the *Circulation* becomes ſuch, as to be able to drive out the dormant, *gouty* Humour that lay diſperſed thro' the Habit. And if there be any faulty Humour in the Body, I think it a great Advantage to have it

thrown out, upon its proper Seat. It is objected likewiſe, that *French* Wines have more *Tartar* than thoſe others: But I cannot tell, if that Obſervation be juſt. For tho' more *Tartar* be found in the Veſſels, containing *French*, than *Portugal* or *Spaniſh* Wines, that argues only, that the *French* throw off their *Tartar* more readily than thoſe others. And tho' upon Diſtilling *French* Wines, there remains more *Tartar* than in Diſtilling thoſe others, yet to compenſate that, there remains, in Diſtilling *Spaniſh* and *Portugal* Wines, a burning corroſive Oil, infinitely more deſtructive to the Stomach, concoctive Powers, and ſmall Veſſels, than any *Tartar* can be; and which is not to be found in diſtilling *French* Wines: And I very much queſtion, if *Tartar* be ſo unfriendly to human Bodies, as is imagin'd. If ſo, we ſhall loſe a great many fine Medicines. Add to all theſe, that in diſtilling *Portugal* and *Spaniſh* Wines equally ſtrong, and of an equal Quantity, the *French* yields abundance more Spirits, of a higher, and briſker Nature, and of a leſs hot, and burning Quality, than thoſe others. The rotting of the *Salts* in any of theſe Wines, is ridiculous: the *Salts* being of a much more durable Nature than the *Spirits* themſelves. All that Time can do for them, is by the repeated *Fermentation* to leſſen the Size of the *Salts*, and *precipitate* towards the Bottom of the Veſſel, the groſſer Parts, ſo that the lighter may

may be more eaſily ſeparated from them: And on this Conſideration, the *French* has the Advantage likewiſe. For by reaſon of its comparative Lightneſs, and its more readily parting with its *Salts*, it ſooner becomes ripe, than the *Spaniſh* or *Portugal* Wines. Thoſe who live very temperately, and drink but a few Glaſſes after Meals, may content themſelves with old *Spaniſh*, or *Portugal* Wines; But the *gouty*, who live more freely, ought certainly to chuſe generous *Claret*: Tho' it be Cuſtom only makes either neceſſary in any Quantity: And they who are averſe to, or fly Pain at any rate, muſt content themſelves with old *Portugal* Wines only.

LVIII. Having mention'd cold Bathing, I am the more willing to ſet this ſo ſafe and univerſal a Mean, for the Recovery of the weaken'd Parts, after a Fit of the *Gout*, in a clearer Light; becauſe a groundleſs Jealouſy of the Danger of its throwing the *Gout* inwardly, has made it univerſally diſus'd. Nothing made a greater Noiſe upon its firſt Reſtoration, and nothing could have ſunk lower in its Reputation ſince, than cold Bathing: And it will always happen ſo in Things fitted to the vulgar Capacity, when they are univerſally preſcrib'd, without Diſtinction and without Choice. Thoſe who know how greatly Foulneſs and Uncleanlineſs promote Epidemical, Peſtilential, and Infectious Diſtempers, can only

only tell what Cleanneſs contributes to Health. The *eaſtern* People (whoſe Lazineſs, in other Things, is owing to their Climate) have found cold Bathing and Ablution ſo neceſſary to their Health, that they have made it a part of their Religion, as it is a Precept of a Religion of a nobler Extract, from whence they borrowed it. If the modern Doctrine be true, as I really think it is, that the ſmalleſt *Fibres*, or thoſe of the laſt Diviſion, in animal Bodies, be not open and pervious, but ſolid; then it may be affirm'd, that warm Water, (I mean pure Element, endu'd with no medical Principle) by the active Power of its Heat, muſt neceſſarily relax ſuch *Fibres*. And that cold Water, from the *Nitre* which produces its Coldneſs, muſt neceſſarily contract them. The Tumor of the *Gout*, like other inflammatory Swellings, is owing to an Obſtruction, or to the *gouty* Humours flowing faſter by the *Arteries*, than it can be receiv'd by the Veins; the ſmalleſt or capillary Veſſels are thereby extended and ſtretch'd, beyond their natural Power of Reſtitution; ſo that when the *gouty* Humour is ſpent by Perſpiration, or driven into the Veins, by the ſucceſſive Stroaks of the Circulation; the Obſtruction remov'd; and the Pain entirely gone off; the Veſſels continue thus widen'd and ſtretch'd, beyond their Power of Reſtitution, for a long Time after. And this is the ſole Cauſe of the long and tedious Weakneſs on the Part after the Fit is over; which would yet

continue

continue longer, did not the Coolneſs and Preſſure of the ambient Air, and the now ſufferable Weight of the Cloathing, give the firſt Impulſes to the *Fibres* towards their contracting themſelves again. Now nothing in Nature can ſo readily or ſo certainly bring this about, as Bathing in cold Water: For the *Nitre* in the Water, which is the Cauſe of its Coolneſs; and alſo the uniform equal Preſſure upon the Part, which ariſes from its Gravity and Fluidity, concur to communicate to the *Fibres* a ſtrong and laſting Impulſe towards reſtoring themſelves to their natural State of Contraction. And the *gouty* Humour now being ſpent, and the Obſtruction entirely remov'd, as is ſuppos'd, how can any ſuch Humour be tranſlated upon another Part, by cold Bathing, more than if the Perſon had never had the *Gout?* Now to make this Remedy ſtill more effectual, after a previous Courſe of cold Bathing, cold Pumping on the Part, by the Force of a Pump, or the Fall of Water from a Height, may be conveniently us'd: The wonderful Efficacy of which is no leſs certain here, than it is in white Swellings on the Joints, where, I think, it is a never failing Remedy. I am very well inform'd of the Caſe of a very conſiderable Perſon, who for many Years before, being tormented with conſtant and uninterrupted Pains of the *Gout*, Summer and Winter, by daily Bathing in a Tub of cold Water, has, for theſe ſeveral Years paſt,

paſt, brought them to regular and periodical Fits, at the cardinal and critical Seaſons only; and of no longer Duration than uſual. I know alſo an ingenious Phyſician, who, after a Fit of the *Gout*, goes daily into the cold Bath, till the Part has recover'd its natural Strength, which conſtantly happens in much leſs time than it would do otherwiſe. And many others, who are conſiderably ſtrengthen'd, and preſerv'd from catching Cold, by cold Bathing in the Intervals of the *Gout*; tho' this Practice is very cautiouſly to be gone about by Old and Weak.

LIX. The *nervous*, and flying *Gout* (both which I take to be the ſame, and to differ from the windy *Gout*, which is nothing but a *Hypochondriacal* or *Hyſterical* Symptom) is owing to the weakneſs, ſoftneſs, or relaxation of the *Nerves* of thoſe Perſons who labour under it. All the Solids of the Body are made up of ſmall Threads or Filaments of different Natures and Textures. They are divided into the *Fleſhy*, the *Nervous*, the *Membranous*, and the *Bony*; and make up the ſolid Subſtance of the whole animal Body: But all of them agree in a greater or leſſer Degree of Springineſs or Elaſticity. And it is obſervable, that ſome of the moſt perfect ſpringy Bodies are made of animal and vegetable Subſtances; ſuch as Ivory, Ebony, and Whalebone. Wherein the general Nature of Elaſti-

city conſiſts, or what is the particular Cauſe of the eminent Springineſs of animal *Fibres*, is as hard to explain as conceive; which notwithſtanding, is the nobleſt Inſtrument of all the Actions and Functions of an animated Body. All the Attempts hitherto made to diſcover the particular Nature of a *Contractile* and *Diſtractile* Animal *Fibre*, to me ſeem inſufficient and conjectural. *Lewenhoeck* has diſcover'd, by his Glaſſes, that the ſmalleſt *Fibre* of an *Elephant* is not bigger than that of the ſmalleſt *Inſect*: And if the modern Syſtem of Generation be juſt, to wit, that an Animal or Plant comes from another leſſer one; then Growth is nothing, but the unfolding the original *Membranes* and *Fibres*: And the Length of every *Fibre* is the ſame in the youngeſt, as in the full grown Animal or Plant. So Growth and Motion both, that is, the whole Buſineſs of the Animal Life, is owing to the Springineſs of theſe *Fibres*. The beſt Reſemblance I can make of them, is that of a long Hair, or ſmall twiſted Gut, which, when ſtretched to any Length beyond its natural State, will reſtore it ſelf again to its former Dimenſions. And in this Contraction and Reſtitution of an Animal *Fibre*, the greateſt Myſteries of the whole Structure conſiſt. As there are ſome People who have hard, groſs, ſtiff Hair, with a ſtrong Spring; ſo there are others, who have ſoft, fine, weak Hair, with a feeble Spring: And, generally ſpeaking, as the Hair is, ſo the

Threads, Filaments and *Fibres* of the Body are. Thoſe whoſe *Fibres* are ſoft, fine, weak, and of a feeble Spring, are generally ſaid to be of weak *Nerves*, and liable to *nervous* Diſtempers. And here we may obſerve the Difference between more tenſe and ſtiffer *Fibres* and more ſpringy and elaſtick ones. All the *Fibres* of the Body are in a State of *Diſtenſion*, as is evident from the gaping Lips of Wounds. Two Perſons may have *Fibres* of the ſame Degree of Springineſs and Elaſticity ; and yet in their natural State, and original Formation, the *Fibres* of the one may be more ſtretch'd, bent, and diſtracted, and conſequently more ſtiff and tenſe, than thoſe of the other ; whereby the more ſtiff or tenſe *Fibres* making a greater Reſiſtance, and being with more Difficulty ſtretch'd and widen'd, will give more Pain, when a groſs Fluid paſſes thro' them, than leſs ſtiff or tenſe *Fibres* will. Which gives an Account why, of two Perſons, both of them of weak *Nerves*, the one ſhould have the *Gout*, the other be free from it. Perſons of weak *Nerves* muſt neceſſarily have leſs Strength, a weaker Pulſe and Digeſtion ; a ſlower and more imperfect Circulation of the Fluids, and a leſs free and perfect Perſpiration ; and if they happen to indulge in ſtrong Meats and generous Wines, they muſt become ſubject to *Hyſteric*, *Hypochondriac*, and *Cephalic* Diſorders. But if, together with weak *Nerves*, a great Degree of Tenſity or

Stiff-

Stiffneſs be join'd, under the ſame Circumſtances, they will be liable to be *gouty*, together with the foremention'd Diſorders. But by reaſon of the natural Weakneſs and leſs original Springineſs of their *nervous Fibres*, the Fits of theſe *Gouts* will be leſs painful, and more conſtant.

LX. *Schol.* I have a long time ſuſpected the reaſonings of *Phyſicians*, and the Accounts given by them of the Nature of Diſeaſes, that were found on *nervous* Juices and *Fluids*, their Motion, Nature, and Qualities: And yet it will be a great *Baulk* on the *Theory* of Diſtempers, the boaſted *Politeneſs*, and the admir'd *Fineneſſe* the preſent Age has advanc'd, ſhould there really be no ſuch Fluids in *animal* Bodies. Certain it is, the *Ligature* on the great Trunks, and Bundles of *Nerves*, ſhow no ſuch Thing. Let it continue ever ſo long, there appears no Swelling above, towards their *Origin*, and let them be ſqueez'd, or *milch'd* ever ſo long downwards, to the *Ligature*: yet no *Tumour* appears. The contrary of which happens to the *Arteries*, and *Veins*, in the like Circumſtances, but on the oppoſite ſides of the *Ligature*: And muſt happen to the *Nerves*, was any ſenſible Fluid contain'd in them. The reſemblance between the *Cortical* Part of the Brain, and an *Alembick*, or Still, is too groſs to ſupport any Veriſimilitude, and there is no Heat in *animal* Bodies, ſufficient

to raiſe a Spirit out of their groſs Fluids, how ever concocted, which require the greateſt Heat to be ſent over the *Helm* : And all that *animal* Concoction ſeems to do, is either by *Attrition*, to break the Food into ſmaller Parts, or by *Fermentation* with other Liquors, to diſſolve the Union of its Parts. Neither of which ever riſes to that Subtilty, as to render groſs Bodies *imperceptible*. The moſt ſubtile Fluid we obſerve ſeparated from *animal* Juices, by the meer Laws of *Secretion* (which is all we conceive is done, to ſeparate the finer Parts of *animal* Fluids from the groſſer) ſeems not to *refine* much above the white Water *hyſteric* Perſons make, or the Steams emitted by *Perſpiration*, which, when condenſed, are ſenſibly thick and clammy, and very much unfit for the Uſes aſcribed to *animal* Spirits. Moreover, if we conſider the *Make* and *Configuration*, the beſt *Microſcopes* give of *nervous Fibres*, we ſhall find them neither fill'd with any Juice, nor pervious to receive any : For that milky Subſtance we obſerve about them, ſeems deſign'd by Nature, to preſerve them *moiſt* and *glib*, for their mechanical *Functions* of *Elaſticity*, and is, by far, too groſs to anſwer the ends of *animal Spirits*. *Lewenhoeck*, after having prepar'd *animal Fibres* of ſeveral ſorts, for his Obſervations, found them by the *Microſcope* compos'd of many hundreds of leſſer *Fibrils* bound together, by a *ſpiral* One ; which *Fibrils* were ſo ſmall, that ſix hundred

dred of them (if I remember right) came to make up the Bigneſs of a Hair of the Head, and could never obſerve them pervious, or hollow: Laſtly, If we conſider the *nervous Fibres*, as ſo many *cylindrical Tubes*, we ſhall not find them of a Form, *analagous* to that of thoſe which we ſenſibly know are contriv'd by Nature to carry a Fluid (and we well know Nature is uniform in her Operations, and conſtant to her ſelf) I mean the *Arteries* and *Veins*, whoſe Figure is certainly *Conical*: So that by their continually leſſening *Diameters*, a greater Action is impreſs'd on the *ſpringy* Sides of the Veſſels, by the included Fluid: Which by *Re-action* being return'd on the Fluid, it is thereby promoted on its forward Motion, and ſo the *Circulation* is performed, elſe the Juices would putrify, and ſtagnate. Whereas in *cylindrical* Veſſels, let their Sides be ever ſo *Elaſtic*, the Reſiſtance from the advanc'd Fluid being ſo great; it is impoſſible the Motion of the *nervous* Juices ſhould be propagated with a ſufficient Velocity, to the diſtances they run; let the impreſs'd Force, at its firſt ſetting out be what it may be with any Reaſon ſuppos'd. Add to all theſe, that ſince the *Nerves* are ſuppos'd to be the *Medium* of Senſation, as well as the Inſtrument of *Motion*; if they are pervious, and full of a Fluid, it is abſolutely impoſſible to conceive, how they can ſo inſtantaneouſly convey their Impreſſions in contrary Directions back-

backwards, and forward. But what ſeems to me an *Experiment* of the *Croſs*, as it is called, or a Fact obvious to the Senſes, which ſhews the Solidity and Impervioufneſs of the *Fibres*, is * Dr *Gliſſon*'s Experiment. " Pro-
" vide, ſays he, a glaſs *Tube*, of a proper Width
" and Length: To which upper and outward
" Side near its Orifice, another Tube like a
" *Funnel*, may adhere: Into the Orifice of the
" larger *Tube*, let a *Brawny* ſtrong Perſon
" thruſt in his whole naked Arm, and the
" Orifice be ſo faſten'd to the Shoulder, that
" no Water can run through it, then let ſo
" much Water be pour'd in, through the *Fun-*
" *nel*, as to fill the greater glaſs *Tube*, and to
" riſe to ſome height in the *Funnel*. Theſe
" Things prepared; let the *Operator*, by turns
" work and ſtrongly move all the Muſcles of
" the Arm, and by turns, let them reſt: In
" the time of the Motion, and Working of
" the Muſcles, the Water will ſink in the
" *Funnel*, and in the time of their Reſt and
" Quiet, it will riſe again. Whence it will
" appear, that the Muſcles, inſtead of ſwel-
" ling and being inflated, during the time of
" their Action, are leſſened, contracted, and
" ſink into their own Subſtance, for did they
" ſwell, or were inflated, the Water in the *Fun-*
" *nel* would riſe, inſtead of ſinking." So far

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* See *Gliſſon de Ventriculo & Inteſtinis.*

Gliſſon.

Gliſſon. And indeed it is evident to the Senſes that while the Muſcles of the Arm are in violent Action (as in playing at *Foyls*) the ſuperficial Veins and Arteries ſwell over all the Muſcles, which proceeds from hence, that the Fibres of the Muſcles being drawn in, and ſinking into their own Subſtance, preſs on the internal Arteries, and leave the ſuperficial ones free and looſe quite round: Whereby the Blood, finding a greater Reſiſtance, flows more ſlowly in the internal Arteries, and is more plentifully derived into the ſuperficial Arteries and Veins, through their lateral Branches. In a Word, all muſcular Action is performed by the Muſcles being harden'd, and compreſs'd inwardly into their own Subſtance (witneſs the Heart, which being *red* in its Relaxation, turns *whitiſh* in the Contraction) which could not poſſibly happen, were any Fluid, how ſubtile ſoever derived through the Fibres, to aſſiſt in the Action of the Muſcles. Thoſe who deſire to ſee more on this Subject, may conſult the learned *Deidier*, *Profeſſor of Phyſic* at *Montpelier*, his Diſcuſſion of this Queſtion. From all which, I am apt to think, that both *Senſation*, and *Animal Motion*, are performed by the Action of an *extrinſic Principle* on ſolid and ſpringy *Fibres*, as the great Sir *Iſaac Newton* ſeems to hint.

LXI. *Coroll.* Since then perfect and intire *Health* conſiſts in the Tightneſs, proper *Tone*, and

and *Springineſs* of the ſolid *Fibres*, as well as the due Fluidity, uniform Conſtitutions, and full and free *Circulation* of the *Animal* Juices, as is evident from the foregoing, together with the immediately preceding Obſervation: We may thence learn, what is neceſſary for preſerving it ſo, as long as Nature has contriv'd it to laſt. To wit, a proper *Regimen* of Diet, for maintaining the Fluids in ſuch a Condition, together with a due Degree of *Labour* and *Exerciſe*, for preſerving the Tone and Spring of the ſolid *Fibres*. Neither will be ever ſufficient alone, without the other; for let our *Diet* be ever ſo exact and proper; our Fluids, ever ſo ſweet and duly temper'd; the *Circulation* ever ſo full and free; yet if the ſolid *Fibres* become reſty and diffus'd, loaded with uſeleſs Particles, ſoak'd in ſuperfluous Fluids, relax'd and flabby, the Juices will at laſt ſtagnate and corrupt, and the whole *Oeconomy* languiſh and ſuffer. But if to a proper *Regimen* and *Diet*, due Labour and *Exerciſe* be join'd, the Muſcles will be habituated to their proper Actions, the Fibres freed from a foreign Load, all undue *Humidity* will be drawn off by *Perſpiration*, the due Temparament of the Fluids will be preſerv'd, and the proper *Tone* and *Spring* of the Solids maintain'd. And here we may obſerve the Wiſdom and Fitneſs of the firſt Command, to *New-fall'n-Man*, of his infinitely wiſe *Maker* and *Maſter*, which is commonly look'd upon, as a *Curſe* rather

than a wiſe *Precept*, to wit, * *in the Sweat of thy Face ſhalt thou eat Bread. If the Rich do not in ſome Meaſure* imitate the *Diet* and *Labour* of the Poor, and in ſome Degree keep to the Letter of this *Precept*, their *Riches* will become a real *Curſe*, in as far as *Health* is more valuable than *Wealth*.

LXII. *Coroll.* Hence alſo we may learn, what *Vapours*, *nervous Diſorders*, *hyſteric* and *hypochondriac Affections*, truly and properly are, to wit, an undue *Relaxation*, Looſeneſs, or want of a proper *Tone*, or Spring, in the *Threads*, *Filaments*, or *Fibres* of the Solids, either from a natural Weakneſs, or an Ignorance, or neglect, of a due *Regimen* of *Diet*, and proper Exerciſe. Let us but ſuppoſe the *Fibres* of the Solids are *relaxed*, looſe and weak, and that a proper *Regimen* of *Diet* is not obſerv'd, nor due *Exerciſe* proſecuted. 1. The firſt Conſequence will be, that the Digeſtions will be *imperfect*, *groſs*, and *glewy*. 2. The next, that the *Stomach* and *Guts*, their *Glands* and internal Coats, will become loaded and diſtended with Wind, *Phlegm*, *Choler*, and *Crudities*: And, 3. Thereby *ſharp*, *ſour*, and *ill-condition'd Fumes*, *Steams*, and *Vapours*, will be conſtantly aſcending to the *Brain*, to cauſe *Head-aches*, *Giddineſs*, and Oppreſſion of Spi-

* Gen. iii. *ver.* 19.

rits, to diſcompoſe its natural and uſual *Functions*, and to paint *falſe* and *deluſory Images*, and *Ideas* on the *Imagination*. And this is the firſt Stage and Degree of the *Vapours* and *nervous* Diſorders, properly ſo call'd, where the Cauſes thereof are confin'd to *alimentary* Paſſages. But theſe cauſes being continued, and proper Remedies neglected; when, through time, theſe *Fumes*, *Steams*, *Wind*, and *Vapours*, get, with the unconcocted and viſcid *Chyle*, through the *Lacteals*, into the Blood, and other Juices; and the *Perſpiration*, by its *Glewineſs*, cannot paſs by its *Drains*, over the Surface of the Skin, nor the other *Secretions* be duly made; there will follow, from the State of the *Stomach* and *Bowels*; 1. Loſs of Appetite, ſour and ſharp *Belchings*, continual *Heartburnings*, *Vomitings* of *green* or *black Choler*, nervous *Cholicks* and *Aſthma*'s; and, at laſt, a total or partial Obſtruction of the *Lacteals*, and thence *Leanneſs*, *Waſting*, and *Death*. 2. From the State of the Juices, and the *Glewineſs* of the Fluids, there will enſue a *Circulation* only, through the greater Arteries, and Veins, and their *lateral* Branches, whereby the *Extremities* will be render'd *cold* and *chilly*, a Senſation, like that of cold Water ſprinkled over the Body, will be often felt, *drilling* along its Surface; *fleeting* and *unconſtant* Pains in the Limbs, like that of a *cold Rheumatiſm*, through Crudities and Obſtructions in the ſmall Veſſels; and windy *Tumours*,

and *white Swellings* on the Joints, eſpecially on the extreme Parts. 3. And laſtly, when theſe ſharp and acid *Streams*, *Fumes*, and *Vapours*, have made their way through the *Glands*, or Sides of the *ſmalleſt Veſſels* into the Cavities of the *Brain*, the *Interſtices* of the Muſcles, and between them, and their involving *Membranes*; there will follow grievous and conſtant *Head-aches*, perpetual *Giddineſſes*, tearing Punctures over the Eye-balls, *Hyſteric* Fits, *Convulſions*, *Epilepſies*, and *Apoplexies*, and all the black Liſt of Miſeries and Tortures, which often termimate in a total *Alienation* of the *Underſtanding*, different according to the different original *Complexion*; dark *Horrors* or *Deſpair*, which tempt the diſtracted *Sufferer* to make away with it ſelf, or a ſudden end of its Miſeries, in the end of its miſerable Life. It is certain, tho' this laſt Stage ſeldom or never happens to any one, but through a *flagrant* and obſtinate neglect of proper Remedies, in due time, in the Patient, or a ſupine Careleſſneſs in the Friends. As it is alſo certain, that the firſt Stages of this Diſorder may ariſe from an original and hereditary Weakneſs in the Solids, any violent Evacuation or enormous Paſſion of the Mind, which the Patient cannot prevent, or be juſtly blamed for: But the common and acquir'd *Vapours*, may be very properly deſcrib'd, in that Expreſſion of *Holy Writ*

of *Idleneſs and Fulneſs of Bread.* The Cauſes thus known, the Prevention and Cure will be natural and eaſy, which I ſhall have occaſion to ſet forth hereafter.

LXIII. *Corol.* From this Account of the *nervous Gout* and other *nervous* Diſtempers, 'tis plain, all Evacuations (except the moſt gentle) muſt be prejudicial in them. Gentle Vomits, as they cleanſe the Stomach and Bowels, and principally as they free the *Nerves* from all extraneous Bodies, and increaſe the Perſpiration, by the violent Convulſions and Contractions of the internal Muſcles and Membranes; Bliſters, as they open the Obſtructions of the ſmall Veſſels, by their external, and thin the ſizy Juices by their internal Efficacy; I ſay, both theſe Evacuations may not only ſafely, but with great Advantage, be us'd in *nervous* Caſes. But all violent Purges and exceſſive Bleedings, are religiouſly to be abſtain'd from, as increaſing the original Weakneſs. Purges in People of weak *Nerves*, in chronical Caſes, carry off a great part of the Nouriſhment of almoſt three Days. Vomits, on the contrary, carry off only thoſe Crudities, that ſend up to the Head and *nervous* Syſtem, the noxious Fumes and Vapours that cauſe their Miſery. Purges relax and weaken the *Fibres* of a natural and neceſſary Function, to wit, thoſe of Digeſtion: Where-

as

as Vomits can but weaken the Action of *muſcular Fibres*, leſs us'd, ſtrong in themſelves, and not ſo neceſſary to Concoction; as is evident from *Monſieur Chirac*'s Experiment about Vomiting. Purges carry off little but what would otherwiſe paſs off, in time, by the natural Courſe of the *Periſtaltic* Motion; and generally leave behind them what wants the inverted Motion, as they found it. Whereas Vomits pump up thoſe Crudities that Nature it ſelf would (gladly, ſo to ſpeak) throw up, by the ſame Organs, the ſame way Nature tends. *Laſtly*, Sour and acid Humours, lodg'd in the Stomach and Guts, muſt neceſſarily weaken both, more than either gentle Vomits, or Purges poſſibly can; with this Difference tho', that a very gentle, natural, or artificial Purging, continu'd for any long time, in Perſons of weak *Nerves*, will both weaken the Perſon, and waſte the *Muſcular* Fleſh. Whereas you ſhall find, after ſeveral Months daily vomiting, in a Sea Voyage, a Day or two's Refreſhment aſhore reſtores the Perſon to a greater Degree of Alacrity and Strength than before: Whence it comes to paſs, that Perſons of weak *Nerves* are ſo much reliev'd and rais'd by Vomits; and, on the contrary, ſo much ſunk and depreſs'd by rough and ſtrong Purges in chronical Caſes. What farther is to be expected in ſuch Caſes, is to be done by a regular and ſtrict Diet, fitted to the mere Neceſſities of Nature.

Nature. Strengthners of the digeſtive Faculties, (and here the *Bark* and *Steel* claim the firſt Place, as being the moſt certain Strengthners of weak *Nerves*) gentle and conſtant Exerciſe, as encouraging the Perſpiration: *Aromatic* and ſpicy Bitters, volatile attenuating Medicines, and whatever may be thought fit to nouriſh, comfort, and ſupport the Animal Functions.

LXIV. In low, *Hyſteric*, *Cephalic*, and *Nervous* Caſes, nothing is to be done without an uniform low Diet, and a ſtrict *Regimen*; and that of the lighteſt Foods, and the leaſt Quantity. And the Reaſon is, the whole *Syſtem* of the Nerves, and the *Fibres* of the Solids being relax'd, the *Concoctions* are proportionably weaker, the Force of the *Circulation* more impair'd, and the *Perſpirations* leſs, and conſequently ſtrong Food of hard Digeſtion, or a greater Quantity of any ſort of Food, than the Stomach can concoct, the *Lacteals* receive, or the Expences of Living require, muſt lie crude, and corrupted in the *alimentary* Paſſages, and beget groſs Chyle, and ſluggiſh Fibres, which will be diſobedient to the Command of the Will, improper for the *Functions* of Life, and will neceſſarily run into Diſorders, and *Convulſions*. I have ſeen ſome of thoſe ſuffer even unto the laſt Extremity, and to mortal *Agonies*, from a large Meal, and Food of hard Digeſtion, or the leaſt ex-

ceſs

ceſs in ſtrong Liquors. And I never ſaw a perfect Cure attain'd in ſuch, where a ſpare thin Diet, of but little Fleſh Meat, and that of the youngeſt, and whitiſh Kind, (as leaſt abounding with urinous Salts) leſs Fiſh, and leaſt ſtrong Liquors, were not join'd to proper Remedies. And this Diet alone (with gentle Vomits, ſome few Stomach-Purges, light Bitters, mineral Waters, and riding on Horſeback) has been more effectual in ſuch Caſes, than all the reſt of the Apothecary's Shop put together. The Caſe of an eminent *Phyſician* in *Croydon*, dead not long ago, is very particular. He had long labour'd under the *Morbus Caducus*, or *Falling Evil:* And in the Infancy of his Practice, had often dropt off his Horſe, going to his Patients, and had been carried home by the next Waggon. He had try'd all that *Phyſic* could do, or Phyſicians adviſe; as he himſelf inform'd me, to no manner of Purpoſe. But by ſlow obſervation, he had found, the lighter his Meals, the lighter his Fits: At laſt, he caſt off all Liquids but Water, and found his Fits weaker, and their Intervals longer, and by Degrees finding his Diſeaſe mend, as its Fuel was withdrawn, he took to *Vegetable* Food, and Water only. This he found too windy for his Stomach, tho' it put an entire *Period* to his Fits, without any Relapſe. But after ſeveral Trials, he fix'd on two Quarts of *Cows-Milk* every Day: A Pint for Break-faſt, and another for Supper,

Supper, and a Quart at Noon: Without Fiſh, Fleſh, Bread, or any ſpirituous Liquors, or any thing elſe whatſoever, except Spring-water. And this he ſeldom wanted, but after great Exerciſe and hot Weather. In the fourteen Years he lived afterwards, he never had the leaſt Interruption in his Health, Strength, or Vigour: Except once by catching an Ague, as he rode thro' the *Hundreds* of *Eſſex*, which chewing a little *Bark* quickly remov'd; till by lying in a damp Bed in a froſty Seaſon, he caught a violent Cold, which ended in a *Pleuriſie*: And neglecting to bleed himſelf, thro' an Opinion of the Sufficiency of his Diet to cure all Diſtempers whatſoever, it cut him off in a few Days: Elſe in all probability he might have lived healthy, and in the entire Uſe of his Senſes, and Faculties, as long as *Cornaro*: Now all nervous, and *cephalic* Diſtempers being Branches from the ſame Root, and *Cadits* of the ſame Family: this ſhort Hiſtory ſhews what Wonders a *Regimen*, and Diet, if duly inſtituted, and religiouſly purſued, will work in them. I have met with the like Succeſs from a Diet leſs rigorous, and more various, tho' ſpare and uniform.

LXV. There is a Diſorder belonging to the *Sex*, commonly aſcrib'd to *relax'd Fibres*: The moſt dangerous, obſtinate, and hardeſt to be cur'd, of any they are ſubject to; which, in

in my Opinion, is neither fully underſtood in common Practice, either as to its Cauſe, or its Cure. For beſides, a State of weak *Nerves*, and relax'd *Fibres*, there is alſo an *ill Condition* of the Juices, which conſtantly attends this Diſorder, as is evident from the Circumſtances of its Diſcharge, its Colour, Conſiſtency, and the Pain it gives: Beſides the unhealthy *Complexion*, the imperfect *Concoction*, and the *Sizineſs* of the Blood accompanying it; there is one remarkable Difference between it, and the *firſt Stage* of the *immodeſt Infection*, viz. That while the *Lunar* Diſorders happen, the firſt never appears; but in this laſt, they are ever Companions, as I conſtantly, and without once miſtaking, have obſerv'd. And this ſingle Obſervation, is ſufficient to determine the true Nature of the Weakneſs we are now ſpeaking of, *viz.* That it ariſes from the Sizineſs of the Juices; which continue to flow from the ſame *Organs* and Veſſels the *Lunar* Diſorders come from; which *Organs* and Veſſels, through the Weakneſs of the *Nerves*, and the Laxity of their Fibres, not being able to ſhut themſelves altogether, and with a ſufficient Spring, ſo as to hinder every Fluid from paſſing; But after having contracted ſo far, as to ſhut up the larger Cluſters of the *red Globules*, they are too weak entirely to cloſe; but continue to let the ſerous Part, and the leſſer *Cluſters* paſs. And it is evident from Sir *Iſaac Newton*'s Diſcovery about Colours, that they

entirely depend on the Magnitude of the Parts. And that this is the true Cauſe, and genuine Nature of this Diſtemper, when it is habitual, and not owing to Accidents, is evident from many Circumſtances attending it. One I ſhall mention, which I think will be ſufficient to aſcertain this Account, *viz.* That this Diſorder, if not curable, generally ends in a Conſumption or Dropſy; and theſe are the very Diſtempers, which a conſtant Drain and Expence of the *Arterial* Juices produce. As alſo, if this order be prepoſterouſly ſtopt, it gives immediate Pains, Swellings, and Inflammations in the Breaſts, which every one knows a Stoppage of the *monthly Periods* do in the ſame manner produce. From this Doctrine, thus explain'd, it is evident that all *Aſtringents*, properly ſo called, *viz.* (ſuch as thicken the Blood, conſtringe the Veſſels, and dry up the Humidity, only, as drying Earths, Shell-Powders, *Vitriolic*, and *Styptic* Medicines) and all *Balſamicks*, and *terebinthinate* Medicines (which ſpoil the Stomach, weaken the Digeſtions, and relax the Fibres more) are either uſeleſs, or hurtful in the *firſt* Inſtance; and that the true Method of Cure is to treat it at *firſt* as a *Cachexy*, or ill Habit of Body. Wherefore gentle *Vomits* ſucceed wonderfully here, as they mend the Digeſtions, open Obſtructions: But principally as they are the beſt Revulſions from the Part affected. Next a *Regimen* or Diet, ſuch as fits a broken Conſtitution;

ſtitution; and then the Cure may be finiſhed by *German Spaw*, *Tunbridge*, and other aciduated and chalybeat Waters, waſhing down a ſtrengthning Medicine of the *Bark*, *toaſted Rhubarb*, *Orange-peel*, *aſtringent* Bitters, and aſtringent *Saffron* of *Steel*. Sometimes this Diſorder comes from a *cancerous* and ſcrophulous Taint; in which Caſes nothing is to be done, but to palliate, or relieve, except by a total *Milk Diet*.

LXVI. There is one Calumny, amongſt many others, Ignorance and Partiality have very unjuſtly thrown on the weaker, tho' certainly the leaſt corrupted part of this our Race: (weaker, I mean, as to the fleſhy Fibres, for *Souls*, and *Spirits*, as well as the World of *Spirits*, admit of no *Sexes*) *viz.* That the Barrenneſs, Unfruitfulneſs, and want of Poſterity, ſo frequent in *England* (eſpecially among the better Sort) is commonly caſt on them; whereas it is very great odds, if the Fault lies not on the other Side. If the Account of *Generation*, commonly admitted now, eſtabliſhed and confirmed by undeniable Experiments, and Obſervations, both in the vegetable and animal Kingdoms, be true and juſt, as I really think it muſt be in the main, which is ſufficient for my purpoſe, *viz.* That the *Female* furniſhes ~~not~~ only a proper Habitation, fit Nouriſhment, due Warmth, and ſuch like outward Conveniences for the little *Beings*; but

that the *vital Principles*, the *living Particles*, proceed altogether from the *Male*; then it will follow, that the Concurrence of a great many more Circumſtances, and their preciſe Degrees (ſuch as Temperance, Coolneſs, a juſt Mixture, due Conſiſtence, and exact Proportion of the Parts of the Blood, Spirits, and other Secretions: In a Word, a more nice, preciſe, and critical State of Health) is neceſſary for *Fecundity* in the Male, than in the *Female*, and that in as high a Degree, as Life is exalted above *animal Nutrition*, or Increaſe. The Liberties Men take beyond Women, the Riot they run into, their continu'd *Debauches*, the Viciſſitude of Heaters and Coolers, the high ſeaſon'd and inflaming Diet, the better ſort of young Perſons of our Sex accuſtom themſelves to; will more than ſufficiently juſtify this my Obſervation. How can Fruit be expected from a Tree, whoſe Root is roaſted, ſpiced, or ſalted to a Mineral? Life is likely to hold long, or be very healthy, that comes ſeaſon'd, and ſows'd in *Hermitage*, *Tokay*, or *Citron-water*? The Obſervation is ſo true, that here at *Bath*, where generally, and very juſtly, ſuch Caſes come, as to their laſt Reſource; I have often ſucceeded by making proper Application to the leaſt ſuſpected Party, by bringing them to a due State of Sobriety, Coolneſs, and Health, the only juſt Foundation of Fruitfulneſs in either Sex. How fertile are the *Scotch Highlanders* on their Milk and Oatmeal?

and the *Native Iriſh* on their Potatoes, and Milk? it is common to ſee at their Doors, a range of Children like the Steps of a Stair, ſhewing the Number of Years ſince their Parents came together. Whereas here in *England*, you ſhall ſee great Families extinguiſh, and great Eſtates deſcend to an *Hoſtler*, or a *Centinel*, ſcarce within Arithmetical Degrees of Kindred, for want even of a *Female* in a direct Line, to inherit. Such Obſervations as theſe (as my Friend the *Milk Doctor* of *Croydon*, ſince inform'd me) enabled him to direct ſeveral Families which he nam'd to me, towards Heirs of their own Bodies, who had liv'd, ſome Seven, ſome Ten, ſome more Years from their Marriage in deſpair of any. And I am very certain, if thoſe who are ſo very anxious for Poſterity, the want of which ſeems to make their only worldly Miſery, would in any Time not long after the *Meridian* of their Lives, enter upon a courſe of cooling, ſweetning, and *fructifying* their Juices, by imitating the Labour, and Diet of the Poor, with other proper Aſſurance; they would more certainly give Heirs to their Families, and enjoy better Health themſelves than they do. Provided there be not a *ſcrophulous*, or *venereal* Taint on either ſide. In which Caſe, I think their Infœcundity is no Misfortune.

LXVII. From the known Doctrine of *Nutrition*, it is evident, that the Food receiv'd into

to the Stomach, is there reduc'd to a *milky* Subſtance: the finer Part of which being ſeparated by the *Lacteals*, and ſent by a large Duct into the *axillary* Vein, returning into the *left Ventricle* of the Heart, is thence derived into the *Lungs*: They ſend it into the *right Ventricle*, and from thence it is ſqueez'd thro' the *Arteries* over the whole *Syſtem* of the Solids. The ſhorter and ſmaller Branches thereof ſerving to recruit, and repair the Coats of the Veſſels, and *Organs* nearer the *Heart*, while the longer terminate in *Glands*: Some of which emit a ſhorter *Duct*, either for the Nutrition of the Parts, or for ſeparating the *Recrements* that are to be thrown out of the Habit, while others terminate in yet much longer, and ſmaller *Ducts*, and run along with the Fibres (*Fleſhy*, *Nervous*, *Membranous*, or *Bony*) that make up the Solids of the Body; and there leave proper Nouriſhment to recruit the Expences, or Decays of Life; and to repair the natural, or accidental Injuries they may ſuffer. Hence it is eaſy to obſerve how many *Alterations* Food and Medicines muſt undergo, and what a length of Way they have to paſs over before they can reach the *Fibres*, which are the conſtituent Parts of all the Solids. As alſo how difficult it is, and what a tedious Time it muſt require to perform any great or notable Alteration, or Effect on the Nerves. Now in a relaxed State of the *nervous Syſtem* (the Origin of all

nervous,

nervous, and *cephalic* Diſtempers) I can conceive but three poſſible Ways of contracting or winding them up, *i. e.* of curing them. The firſt is, by ſending Nouriſhment duly concocted and ſufficiently ſubtilized (ſo as it may readily quite paſs thro' all thoſe ſmall winding *Channels* to the laſt ſolid Fibres) to fill their empty Pores, to ſwell their Bulks, and thereby to leſſen their Lengths, *i. e.* to ſtretch, or wind them up: Hence the neceſſity of a low, cooling, uniform Diet: Hence the Uſe of gentle Vomits, which cleanſe the *alimentary* Paſſages, and hinder their Impurities from mixing with the Blood, which by their internal Concuſſions ſhake off all *extraneous* Bodies from the *Fibres*, and by the ſtrong Convulſions of the Muſcles, open the Obſtructions of the Veſſels, and promote the *Circulation*. Hence the neceſſity of *Bitters*, *Aromaticks*, *Chalybeats*, *mineral Waters*, Exerciſe, and whatever elſe can promote, or mend the Digeſtions, are indicated. (2.) By attenuating the ſizy Blood, and Juices whereby they may be ſufficiently ſubtilized, ſo as to reach the *Fibres*, and carry into them proper Nouriſhment for winding them up, as was now ſhewn. Hence the Neceſſity of *Volatiles*, *Attenuates*, and *nervous*, or *antihyſterick* Medicines, properly ſo called, is indicated. Tho' I have obſerved but little done by theſe laſt, except in Fits, and for a preſent Relief. (3.) By ſending thither (as *far* as *Art* can do it)

it) Medicines, which when arrived there, may *ſtraiten*, *ſtiffen*, or *wind* up theſe *relaxed Nerves*, which indicates the *Bark*, *Orange-Peel*, toaſted *Rhubarb*, *Acorns*, the *Vitriolum*, and the *Crocus Martis*, and whatever elſe is endow'd with a cool bitter Aſtringency, with the *leaſt Acidity*. From this Account we may obſerve, why Purging ſucceeds ſo ill in nervous Caſes. For beſides, that it carries off the Nouriſhment (the ſlow Digeſtion in theſe Caſes makes it, that greater crude Quantities are carried off by a purge in them, than in others) it counter-acts the very Intention in the Cure, *viz.* The Contracting or winding up the relax'd Fibres of the Solids, which it is impoſſible ever to execute, but by beginning at the Fibres of the *Stomach* and *Guts*, as we obſerve in the Bark, which never ſucceeds when it purges: At leaſt neither ſo ſoon, nor ſo certainly; (and therefore I always add a few Drops of *Laudanum* to it in weak Nerves) which from this Beginning, by continuance, propagates it ſelf to the laſt Extremities, like the twiſting of a Rope, where a Twine at the moveable Extremity propagates it ſelf by Degrees, to the fix'd End, be their Diſtance ever ſo great. So that there is no ſucceeding in nervous Caſes, without firſt rendring the Fibres of the *Stomach* and *Guts* tight, *i. e.* the Body firm, if not coſtive. And poſſibly, it may be from this Quality (*Aſtringency* without *Acidity*) with its being more

more eaſily digeſted, than Roots, and Barks are, that *Miſletoe* of the *Oak* (or of any other Tree) ſo juſtly celebrated by Sir *John Colebatch* is ſo ſucceſsful in the Fits of younger Perſons, even the *Epileptic* ones, as I have partly experienc'd my ſelf.

LXVIII. *Coroll.* It may not perhaps be amiſs to illuſtrate this Method of Cure in a particular Caſe of *relax'd Nerves:* A Caſe, I ſay, which happening tho' but ſeldom, yet has the moſt melancholy Appearance: And is not as yet, for ought I know, brought to ſo eaſy, and ſo certain a Method of Cure, as is here laid down, which is plainly deducible from the general Method deſcrib'd in the preceding *Scholium*; and that is the *Chorea Sancti Viti, or St Vitus's Dance.* Which treating after the following Method, I never fail'd of a ſtanding Cure, in all thoſe that came under my Care, as ſome now living can witneſs. The Party being young and otherwiſe healthy (elſe a proper Method for a Cure of a *Cachexy*, already deſcrib'd, was premiſed). To anſwer the firſt Intention of the general Cure, I order'd a Vomit (generally I combin'd either the *Emetic Wine*, with an Infuſion of the *Ipecacuanha*, or the *Tartar Emetick*, with the Powder of the *Root*, wherein the latter adds Certainty and Expedition, the former Force and Strength, to the Operation) to be repeated regularly on the ſame Day of the Week,

for a conſiderable Time, till the Diſtemper began to decline, (and then I lengthned its Intervals) together with an *Anticachectic* Diet, already explain'd. To anſwer the ſecond Intention, I preſcrib'd for a Month, or ſix Weeks, on all the intermediate Days, a large Doſe of *Æthiops Mineral*, with *Bath* Waters to waſh it down. And *Laſtly*, After this Courſe finiſhed, to anſwer the third Intention, I gave an Electuary of the *Bark*, *Orange-peel*, Powder of *Acorns*, and *Crocus Martis Aſtringens*, to brace the Nerves inwardly; and order'd cold Bathing every other Day, for producing the ſame Effect outwardly; and the Cure ſeldom exceeded three Months.

LXIX. The Diſtinction of an *Humorous* and a *Nervous Aſthma*, *Cholick*, *Cough*, and *Gout*, &c. ought all, to be founded (in true *Philoſophy*) on the Difference between a *firm*, ſtiff, and *ſtretch'd State*, and a *looſe*, *flabby*, *relax'd* State of *Nerves*: And the different Method of treating them ought chiefly to conſiſt, in the different Degrees of Evacuations they require. Thoſe of the humorous Kind abounding in more groſs, heavy, and fizy Humours, and a greater Plenty of them; require more plentiful and more powerful *Evacuations*: But then thoſe of the nervous Kind, require always ſome previous *Evacuation*, in Proportion to weaker animal *Functions*. As for Example, in the Nervous, or *Hyſteric Cholic*,

Cholic, when it is come to perpetual *Reachings*, inward *Throws*, and *Convulſions*, tho' the Patient vomits not groſs *Choler*, or great Quantities of *Phlegm*, (tho' this laſt is ſeldom altogether wanting) yet there is ſtill lodg'd in the *Glands* of the *Stomach* and *Guts*, a more ſubtile, and irritating Matter, which twitches, and ſets the Muſcular *Fibres* into thoſe *Convulſions*. And the formal Difference between a *bilious*, and an *hyſteric* Cholic, conſiſts in this: That ſcarce any Thing but the Sharpneſs, and Abundance of thoſe Humours, could poſſibly provoke theſe ſtiffer and more firm Fibres unto ſuch violent *Contractions*. Whereas the ſlighteſt, and moſt ſubtile ſharp *Steam*, is ſufficient to convulſe theſe weaker and more relax'd Nerves: Which when once ſet a going (the chief Thing to be obſerv'd) will, like a *Pendulum*, continue their *Vibrations* for a conſiderable Time from the firſt impreſſed Force. And therefore let their *Reachings* and Pukings be ever ſo violent, and frequent, a *nervous* or *hyſteric* Cholic, will not ſo readily, or ſo certainly, terminate, as by firſt premiſing an artificial *Vomit* (contrary to *Sydenham*'s Opinion) to cleanſe the alimentary Paſſages from the irritating Cauſe; and then endeavouring by warm Cordials, proper *Antihyſterics*, and *Carminatives* combin'd with Opiates (in the leaſt Volume) to ſettle and compoſe the *undulating Vibrations*. And both Cholics are beſt pre-

vented by frequent, warm, gentle Purgers. It is for the ſame Reaſon, that gentle Vomits of the *Indian Root*; the *Jeſuits Bark*; and a low Diet, that gives the beſt Perſpiration, and begets the leaſt of that acid Flatulency, which ferments into thoſe *pulmonick Convulſions*: ſucceed beſt in the *nervous Aſthma*; as the Syrup made of the expreſs'd Juice of *Millepedes*, or *Hoglice*, drown'd in white Wine, and given by Spoonfuls, will infallibly cure Children's Convulſive or Chin-coughs; and as the *Squill Vomits*, Oils, and attenuating Medicines, ſuch as the volatile Salts, and Plants (*Garlic* eſpecially) do in the *Humorous*.

LXX. Having had frequent occaſion to mention the *Bark*, as being abſolutely neceſſary to the Subject I treat; it may not be amiſs to remove one Objection againſt it; and the only one I have ever heard or read made with any Shew of Reaſon. I have taken as much of it my ſelf, and as often, and have preſcrib'd it as freely as any of my Age, I believe; and never obſerv'd it, either in my ſelf or others, do any Hurt, except when it has been injudiciouſly and improperly preſcrib'd, and that in continu'd acute Caſes only. The Objection is, that it often leaves behind it a bad Habit, a *ſcorbutick*, *cachectic*, or *hectic* Conſtitution; bad *Lungs*, *Liver*, or *Stomach*; or ſome of the great *Viſcera* ſpoil'd or corrupted. But the Miſtake in this Objection lies here,

here, to wit, that few Conſtitutions break, and ſeldom any of theſe great Organs become vitiated: but they begin with an intermittent or periodical *Fever*. And theſe I have conſtantly obſerv'd to be of that kind, and approaching that Seaſon, which *Sydenham* moſt judiciouſly diſtinguiſhes from *vernal* ones, and calls *autumnal Agues*; and are indeed Symptomatical only, ariſing from Beginning Obſtructions in the whole Habit, or in theſe greater *Viſcera:* Where all Nature is at work, and the whole Organs labour and ſtruggle to thin the ſizy Fluids, and to open the obſtructed Bowels; but not being able to bring about this End, Nature ſuccumbs after every feveriſh Fit, thus excited, into a worſe State. And even here too, the *Bark* does all its proper Office, in quenching, to wit, the violent *Paroxyſms* of the *Fever*, which only can endanger the Life of the Patient; and allows Time for other Medicines to act. But when the Habit is already broken, and the great *Viſcera* already unſound; it cannot be blamed that it does not reſtore theſe; nothing like that being expected from it, or aſcrib'd to it. When the *Bark* has extinguiſh'd the feveriſh Fits, which threaten Death to the Patient, a Reprieve is obtain'd: In which, by deobſtruent and attenuating Medicines, Health and Life may be ſecur'd. In relax'd *Nerves* of the *Primæ Viæ*; in almoſt all ſorts of *nervous* and *cephalic* Diſeaſes depending on theſe;

theſe; in all *gouty* Diſorders in the *alimentary* Paſſages; in all *nervous Gouts*; in all intermittent and *periodical* Diſtempers, or Pains whatſoever; 'tis preferable to any Thing hitherto us'd; only in very cold Stomachs and Conſtitutions, I have found a Decoction of the *Indian Bark*, by ſome call'd *Elatherium*, to be yet more effectual and ſtrengthning; as it will alſo more readily remove the periodical Diſorders of ſuch. But the *Peruvian Bark* I never found did any Hurt, but in acute continued Caſes; where it runs into violent Purgings: And in the *monthly Purgations* of the Sex, which ſometimes it will obſtruct; and therefore it ought not to be given without *Steel*; which ought alſo to be added, when it is given in chronical Caſes. It were to be wiſhed only, in theſe Caſes, it gave the ſame Relief the ſecond and ſucceeding Times it does the firſt.

LXXI. I have formerly obſerv'd, that when the *Gout* becomes diſperſed over the whole Habit, or fix'd and ſettled on a particular Joint, *mercurial* Vomits and Purges were abſolutely neceſſary to diſlodge it. But there is one Species of the *Gout* which miſerably torments its Subjects, and yet yields not to that, or very rarely to any of the Methods in uſe; I mean the *Gout* on the Hip-Joint, when fix'd and conſtant, commonly call'd the *Sciatica*; and yet treated after the manner I am to explain, never

never fails of a perfect Cure. The Foundation of the Method I had from the late *moſt learned and eminent Phyſician Doctor Archibald Pitcairn*; he having communicated it to me under no Reſtriction of Secrecy, I think my ſelf oblig'd to publiſh it to the World, for the Benefit of the Afflicted. I have us'd it with great Succeſs theſe ſeveral Years, and I think have improv'd it in ſeveral Particulars of the Management; and ſo never fail of a perfect Cure, if the Diſtemper is a genuine *Sciatica*, tho' of many Years ſtanding; and after having baffled all other Attempts. It conſiſts in taking from one, two, three Drams, to half an Ounce (according to the Strength of the Patient's Stomach) of the Æthereal Oyl of *Turpentine* (that which comes off between the Spirit and Oyl, in drawing off the common Oyl of *Turpentine*) in triple the Quantity of Virgin Honey, in a Morning faſting, for four, five, ſix, or eight Days at fartheſt, intermitting a Day now and then, as the Patient's Occaſions require, or his Stomach ſuffers by it. In drinking, after it is down, large Draughts of Sack-whey, to ſettle it on the Stomach, and carry it into the Blood: And laſtly, in taking a proper Doſe of *Matthew*'s Pills every Night, that Day the Medicine is ſwallow'd. This Courſe never fails to remove the Violence of the Pain, and to leave only a Weakneſs on the Part. To remove the groſſer Remains, and ſtrengthen the weaken'd

Part,

Part, I order a Dram to two Drams of Flour of Brimſtone, for ſome time, twice a Day, in a Tea-cup full of Milk. If through great Intemperance, or a violent Cold, the Patient relapſes, I order the Repetition of the former Medicines for a Day or two, which commonly ſets it a packing. And laſtly, to ſtrengthen the *Primæ Viæ*, and enliven the Spirits, I adviſe *Bath* or *Spaw* Waters with *Steel*, and Bitters with *Volatiles*; and perhaps pumping on the Part affected, which never fails to perfect the Cure in a genuine Sciatica. And I hope it may be of ſome uſe, to have a Method of Cure for this Diſtemper, ſo plainly laid down, ſo effectual in it ſelf, ſo eaſy to the Patient, and ſo reſtorative of the Conſtitution in general, in reſpect of thoſe Tortures, and the nauſeous Load of Medicines the Afflicted are forced to go through in common Practice. The great Efficacy of this Courſe conſiſts in the *Æthereal Oyl:* It has been common to preſcribe a few Drops of the Oyl of *Turpentine* in cold *Rheumatiſms* and fix'd Pains on the Joints: But this ſeldom proves effectual in the *Sciatica:* Whereas this *Æthereal Oyl*, having all the Penetration of the *Spirit*, together with the Softneſs and Detergency of the fineſt *Balſam*, but chiefly being of ſuch Lightneſs, that any Quantity of it may be given, that can ſtay on the Stomach, or be kept down by frequent Draughts of any ſoft Liquor eſpecially Sack-whey; which by its Milkineſs uniting readily with

with the *Ætherial Oyl*; penetrates into the leaſt and fineſt Veſſels, and the moſt ſecret Receſſes of the *Animal Oeconomy*; opens their Obſtructions, diſſolves the glutinous Gellies in the Joints, cleanſes the inſides of the *Tubes*, and makes all paſs by Perſpiration. The Rule whereby to accommodate the Doſe to the Patient, is to order it ſo, that it mayn't be ſo much as to recoil upwards; to prevent which, a large Quantity of Sack-whey is ordered: And it ſeldom moves above once downwards; but leſt it ſhould go farther, in the ſubſequent Doſes, the Pills take place.

LXXII. As to *Topicks* or outward Applications, to eaſe or relieve the Part affected in a Fit of the *Gout*, they are dangerous, unleſs diſcreetly manag'd. In the frequently mention'd *Cardinal* Fits of *Spring* and *Autumn*, when, through Ignorance or Neglect of the Methods hitherto laid down, they ſhall happen *Regular*; I would by no means encourage any ſuch outward Application of what kind ſoever hitherto diſcovered, except in the very laſt Extremities of Pain. In the *regular Gouts*, at thoſe Seaſons, theſe Fits are not to be tamper'd with in any manner, but in the way formerly directed. For the Habit being loaded with the *gouty* Humour and Salts, muſt be allowed a time to diſcharge it ſelf, and drive them out of the Body; otherwiſe Life muſt be endanger'd by a *putrid* or *malignant*

Fever: And theſe being the Seaſons when the Humours naturally undergo ſome Alterations; if the *Gout* be thrown upon the extreme Parts, Nature muſt not be diſturb'd in her Operations: But whatever is to be done, is to be directed to encourage and fortify her in her own way; and to aſſiſt her to expel the laſt Breathings of this Humour upon the Parts moſt remote from the Head and Heart, the two Sources of the Motion of all the Fluids: (which has been the Intention of all the Methods and Medicines preſcrib'd in this Treatiſe): For thus the Blood will be putrify'd; the Spirits reliev'd from their Oppreſſion; the Joints render'd pliable, and all the natural Functions ſet at Liberty. When theſe Fits are over, any thing that is juſt and probable, and attended with no Danger, for leſſening the future Fits, and lengthning their Intervals, may be try'd. But in the Fits falling out of theſe Seaſons; in the tedious and lingering Fits of thoſe broken with Age, and habitual *Gouts*; a well choſen outward Application may be ſafely and ſucceſsfully us'd; eſpecially if at the ſame time gentle Stomachic Purges be adminiſter'd; or a Bliſter on the Ancles or Wriſts be open'd, to let out what may be repell'd by the *Topick*; and thereby to ſecure the noble Organs. For let Pretenders brag what they will, I know of no outward Application, hitherto diſcover'd, but what by its Sluggiſhneſs ſtops the natural Perſpiration:

Or

Or by its Activity counter-acts the Direction of the Circulation; and conſequently repels the Humour in ſome Degree or other. But by thus opening a Way for the Humours to paſs elſewhere, the Part affected may be much reliev'd by proper Applications. *Fuller* and *Bates* give the Forms of ſome; and Dr *Pitcairn* was exceeding fond of, and held as a great Secret, that which himſelf has publiſh'd in the laſt Edition of his Treatiſes, which is made of two Ounces of white *Arſenick*, and ſix Ounces of *Live Lime-Stone*, put into four Quarts of boiling Water, ſet in a warm Place twenty four Hours: Stoups of this apply'd warm to the Part, he had found effectual and ſafe. That which I would rather recommend, is Stoups of a Decoction of *Butter-burr*, *Ground-Pine* or *Chamomile* Flowers, or any *Aromatic* bitter Plant in Milk; or a *Pulteſs* of the Head of a Sack-whey Poſſet, or any ſuch ſoft and active Application, to moiſten, ſoften, relax, and open at firſt; and towards the Decline of the Fit, a *Mithridate* or *Venice Treacle* Plaiſter; the *Emplaſtrum Stomachicum Magiſtrale*, or the like, to ſtrengthen, warm, and comfort; eſpecially if with theſe laſt a ſtomachic warm Purge be join'd. As to *ſymptomatic Gouts*, there can be no Place for them, in the Doctrine hitherto laid down. For on the Suppoſition, that the *Gout* is owing to a particular Texture and Conformation of Parts; where that Texture and Conformation of Parts

is, and the Materials for forming the *gouty* Humour is ſupply'd, there the *Gout* muſt neceſſarily be, without the Concurrence of any other Diſtemper: And where theſe are not, there it cannot be, let the Perſon be ſubjected to what other Diſtemper ſoever. And if a Perſon be ſubjected to two Diſtempers, in the Cure of the one, due regard is to be had to the Cure of the other. What has been ſaid is all I intend at preſent on this Subject.

LXXIII. The *Scurvy* is become ſo univerſal a Diſtemper, of late, in theſe our *northern Climates*, amongſt the better, as well as the meaner Sort, (with this Difference tho', that it is much more *fatal* and obſtinate in the *former*, than in the *latter*, from their more complicated Luxury, and their habitual Lazineſs) that, in one Shape or other, it makes, originally, three Fourths of all the *chronical* Diſtempers in *England:* and is connected with, and accompanies all the reſt. Yet in all my Obſervation, or Reading, I never knew one Perſon ſo perfectly cured that he did not relapſe, by returning to the ſame Method of Living, which firſt brought on the Diſtemper; and I think it may even more juſtly be reckon'd the *Reproach* of *Phyſic*, than the *Gout* it ſelf; for tho' it does not torment its Subjects ſo cruelly as the *Gout*, yet the Injuries it does the Head and the *nervous* Syſtem, the *Hypochondriacal*, *Aſthmatical*, and *Hydropic* Diſeaſes

Diſeaſes it brings on, damp the enjoyments of Life more, and haſten its *Period* ſooner than the Gout poſſibly can: hence moſt of the *hyſteric* and *hypochondriac* Diſtempers: Hence the *Melancholy*, *Madneſs*, *Self-Murtherers*, and even the *Barrenneſs* amongſt the better Sort, that abound here in *England*, more than in moſt other Parts of the World, proceed. I have only touch'd on this Diſtemper by the by; from having had ſo much Occaſion to ſpeak of the Advantages of a *Regimen*, or Diet, the only certain Cure of this obſtinate Malady; and therefore I ſhall omit all Enquiries into the Nature and Cauſe of this Diſtemper, and of the Method of Cure adviſed by others, being of the Opinion, that tho' the Medicines may palliate and relieve the *Symptoms*, yet nothing but a Courſe of Living, quite contrary to that which produced it; or ſtepping the ſame Paces backwards, as were made forwards, can perfectly root it out, or effectually relieve it for any Time: That is, by abſtaining from Fleſh, Fiſh, and ſtrong Liquors, in proportion to the former Exceſſes in Living, committed; and joining to this Exerciſe, *Vomits*, *Bitters*, *Specificks*, *Antiſcorbuticks*, gentle *Stomach Purges*, *Chalybeats*, and mineral Waters, to quicken the Relief; but in a general *Cachexy*, and broken Conſtitution, ariſing from a *ſcorbutick* Habit, nothing can cure, or effectually relieve, like a *total Milk Diet*; which long continu'd in, will by far more

more ſafely and certainly cure this Diſtemper, than it will the *Gout* it ſelf, provided always, the Party be not far paſt the Meridian of Life; For then the natural Heat is too far ſpent, for ſo cooling a Diet. And that he begin, and leave it by very ſlow Degrees. This may be done in Part, with great Benefit and Safety, for ſix Weeks every Spring, by thoſe who labour under a deep Scurvy. Living a Month upon Bread, and ſmall Beer only, will faſten the Teeth, when they are dropping out, thro' the Sharpneſs of the ſcorbutic Salts, when nothing elſe on the Earth can do it. Any vegetable Diet will do the like, tho' not ſo quickly, and ſo eaſily.

LXXIV. I have been long of the Opinion, that all *chronical* cutaneous Eruptions, Scabs, Foulneſſes, and Sores, for the moſt Part, ſprung from two Sources only, *viz.* The Scurvy and the Pox; and that the firſt was of a *northern* Extraction, owing its Origin to the *Gluttony* and *Intemperance* of the colder Climes; as the latter was of a *ſouthern* Extraction, ariſing from the *Laſciviouſneſs*, and Uncleanneſs of the warmer Countries; and that it is this Difference of their Origins, that makes them ſo different in their Stubbornneſs, or Facility, in admitting a Cure. The *Scurvy* ariſing from a *Malignity* convey'd by ſlow Degrees into the Blood, and from it into the moſt diſtant *Fibre* and Solid, is ſo difficult in its Cure, that as I have

have obſerved before, no Methods, except a total Abſtinence from Fiſh, Fleſh, and ſtrong Liquors, is ſufficient ſo to extirpate it, but that it will return with all its wonted Fury; if fewell'd by an *Animal* Diet, and generous Liquors. Whereas the Pox manifeſting it ſelf ſooner, with more painful and frightful *Symptoms*, and deriving its Infection from more *ſuperficial* Cauſes never fails of a Cure, till it has arriv'd at its laſt Stages, or Nature, is too weak to undergo it; and as in the *ſouthern* Countries, the *Scurvy*, by reaſon of the conſtant free Perſpiration of the People, and their living moſtly on *vegetable* Food, is not known; and the *Pox* is carry'd off by the ſlighteſt Remedies: So in the *northern* Countries, from contrary Cauſes, the *Scurvy* is incurable, and the *Pox* is only cur'd with much Pain, and by the moſt violent and active Remedies. And as by the Hiſtory of Diſeaſes, we are inform'd, there have been *Symptoms* of theſe two Diſtempers in all Ages ſo we are certain, that they both were as different in *former Ages*, from what they are *now*, as was the natural Simplicity and plainneſs of *Living* of thoſe *early Times*; from the various, and complicated *Luxury* of our Days: Or as was the *Pen-gun* Artillery, which was ſufficient, and effectual in vaniſhing theſe Diſtempers among them, to the *Bombs*, and *ſtink Pots* neceſſary among us. To theſe two original Diſtempers, all the *ſcorbutic* Eruptions, and

pocky

pocky Foulneſſes; all the *Ringworms*, *Itches*, *Scrubado*'s, *Leproſies*, *Elephantiaſes*, and even the *King's-Evil*, or *Scrophula* it ſelf, in theſe our *northern* Climates, owe their Being. And to which of theſe two in particular, each ſingle Caſe owes its Origin, may be always determin'd by its Facility, or Stubbornneſs of admitting a Cure: For if any of them recurs, after all poſſible Methods of Cure, even a *Salivation* it ſelf, we may readily conclude it of the *ſcorbutic* Kind, and that therefore nothing will keep it within Bounds, but a low Diet, and cool Applications. If it yields, and is perfectly cur'd, then muſt it have been of the *pocky* Kind in its firſt Principle, tho' the malignant Taint may have been contracted ſo many Generations before, that there is no gueſſing whoſe the *original Sin* was. Beſides, that there are more Ways than one of receiving this *Infection*. To conclude, I have always obſerv'd, that as the *active*, mercurial Medicines, reliev'd, and at laſt perfectly cur'd the latter: So they no leſs certainly enraged, and exaſperated the former Kind of Evil, as they do in the original Diſtempers, from which they reſpectively ſpring; and that nothing ſucceeded ſo well in the *ſcorbutic* Kind, as Aſs's Milk, ſweetning Powders (*Cinnabar Native*, or of *Antimony*, *crude Antimony* in powder, *Æthiops Mineralis*, &c.) gentle Vomits, a cool Diet, *mineral* Waters, (*Bath*, *Holt*, and *Briſtol*) and ſuch other eaſy Methods, as preſerv'd the

the *Individual* till the Age of *Puberty*, when a ſtronger Perſpiration, a more active, and ſtirring manner of Life, and other Drains common to that Age, draw off the Malignity which then, if at all, happens.

LXXV. There is a Difference, if not a Diſtinction, between the *Gout* and *goutiſh* Diſorders: Theſe laſt having a great many *Symptoms* of the *Gout*, tho' they have neither the Violence of its Pain, nor the Regularity of its Periods. Thus for Inſtance, *White Swellings* upon the Ancles, Knees, and other Joints, which when fixed there, beget only a Stiffneſs, or Weakneſs and but little Pain, yet, like the *Gout*, when tranſlated upon the *Guts*, it produces a *Diarrhœa*; when upon the Stomach *Vomiting*, Nauſeating, and Sickneſſes; in the Head, Heavineſs, Confuſion, Giddineſs, and Pain; and, like the *Gout*, alſo requires generous Cordials, and active Medicines, to baniſh it to its proper Seat, and impriſon it there, which nothing but what enriches, and exalts the Blood, together with what can contract the nervous *Fibres*, can do: Theſe *White Swellings* being a Spice, or weaker Degree of the *Struma*, or *Kings-Evil*. Hot and *inflammatory* Rheumatiſms have all the *Symptoms* of the *Gout*, and, like it, change from Place to Place, and by over violent Evacuations may be tranſlated upon the noble *Organs* and by the Way, it may not be amiſs

to obſerve, that exceſſive *Bleedings*, and other violent *Evacuations*, conſtantly bring a *Hectic*, or a *Dropſy*, on the Patient in this Caſe, Diſeaſes of a much more dangerous Nature in themſelves, and far more difficult to be cur'd, than the original one. Therefore in this Diſtemper, after premiſing only ſo much Bleeding as will prevent a Fever, and Mortification, and ſomewhat abate the Pain (which gentle Doſes of *Cammomile*, and *Gum Guaiacum*, will do more effectually, tho' not more ſpeedily, than Bleeding it ſelf) the reſt is to be done by large Doſes of the *Bark* and *Æthiops Mineral*, mixt; and a relapſe prevented by gentle Doſes of *Gum Guaiacum*, with *Antimony* Diaphoretick, and *Cinnabar* of *Antimony*. But of this enough. Of this *gouty* Kind alſo, is the *nervous* Sharpneſſes of hyſterick Women, which ſometimes, is a Pain in the *Forehead*; a violent Stitch and Pulſation, fix'd over one of the *Eyes*; a Coldneſs in the *Top* of the Head, on the *Temples*, and almoſt all other Parts of the Body by Turns, a Pain in the *Teeth*, the *Jaws*, the *Stomach*, the *Sternum*, and the *Guts*, is a *Strangury*, *Teneſmus*, a *Cholic*, the *Gout*, and the *Gravel*: In ſhort, every Thing, and perhaps nothing but a *Flatus* or Wind twitching ſome Branches of the Nerves, which makes others ſuffer with them by Conſent. And this requires that with the Cordial Strengthners, *nervous*, and *antihyſteric* Medicines, *Opiates* ſhould always be join'd, and then only.

LXXVI.

LXXVI. I have been inform'd, with great Concern, of ſome ſmall Inconveniences that have happen'd in the Uſage and Application of ſome of the Rules, and Remedies advis'd for the *Gout*, in the firſt Edition of this Treatiſe. I did endeavour to lay down the Advices there given, with all the Plainneſs and Preciſion I could: But I begin now to be ſenſible, there is ſome Danger in the Application of the moſt innocent Remedies, without the Direction of a proper Perſon, experienc'd in the Nature of Medicines, acquainted with the Difference of the Conſtitutions, and ſkill'd in the Hiſtory of Diſeaſes. If one afflicted with a *nervous Gout* ſhould uſe *Sulphur* for a Remedy, unleſs it be in a very ſmall *Doſe*, or taken very ſeldom, he can never ſucceed, becauſe *Sulphur* purges, and relaxes the *Fibres* of the *alimentary* Paſſages, which will bring on a Diſeaſe, far more deplorable than the *Gout*, and to which the *Gout* it ſelf brings its Subjects on its laſt and fatal Stages only: Whereas to cure a *nervous Gout*, Medicines are indicated, which gently evacuate, and reſtringe at the ſame time, ſuch as *Rhubarb*, *Aloes*, and the like, or neglecting the *Gout*, the nervous Syſtem is to be ſtrengthned and wound up firſt by *Crocus Martis Aſtringens* the *Bark*, *Orange-peel*, and ſuch other Remedies, as are directed above, in nervous Caſes, whereby the Strength being recover'd

and the Spirits enliven'd, moſt of the *gouty* Symptoms will fly of themſelves. On the other Hand, ſhould a Perſon, ſuffering under an *humorous Gout*, where the *Syſtem* of the Nerves are ſtiff, and ſtretch'd, uſe the *Bark*, and ſuch other Remedies, as are recommended in a relax'd State of the Nerves, he muſt enrage his *Gout*, ſeeing gentle Evacuations, and ſoft Emollients are there indicated. Laſtly, in the Uſe of *Sulphur*, ſhould the Body be render'd too *glib* and *ſlippery*, it ought to be diſus'd for ſome Time; and *light Bitters*, or *Rhubarb* taken in its ſtead. Add to theſe, that the Doſes of all ſuch Remedies ought ſo to be accommodated to the Conſtitution, as never to ſink the Spirits, or weaken the Strength, but rather to increaſe both, which they will always do, in a proper Doſe. Without ſuch Cautions duly weigh'd, and accurately apply'd, no general Directions will univerſally ſucceed in the *Gout*, or any other chronical *Diſtemper*.

LXXVII. For a concluding Obſervation, we ſhall take notice, as it is only the *Rich*, the *Lazy*, the *Voluptuous*, who ſuffer moſt by the *Gout:* (I mean *acquir'd Gouts*, and thoſe hereditary ones enrag'd by *Luxury*) ſo thoſe only, who have ſpent their Life-time under its Tortures beſt can tell, what aſtoniſhing Miſeries *Wealth* and *Vice* bring upon human Kind! When the *gouty* Humour has ſeiz'd

upon all the *noble Principles* of Life, when it has broken, ſubdu'd and obſtructed all the *fine Pipes*, and ſlender Paſſages, in whoſe Openneſs and Soundneſs all the *exquiſite Senſations*, all the *delicate Uſages* of the *animal Faculties* conſiſt. When nothing but Pain, and melancholy, frightful Ideas, horrible Dreams and black Deſpair remain; who would not have parted with the *richeſt Delicacies*, the moſt *delicious Wines*, and the moſt *enticing Vices*, for a plain, ſimple Diet, an uſeful laborious Life, Freedom from Pain, and a good *Conſcience?* TEMPERANCE only, divine, innocent, indolent and joyous *Temperance*, can cure or effectually relieve the *Gout*. For let Us, or our Brethren the *Quacks*, brag what we will,

Tollere Nodoſam neſcit Medicina Podagram.

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